

# **FY2014 Annual Report VSMP Phase II (MS4) Program Hanover County, Virginia**

**Permit No. VAR040012**

Prepared by:  
Department of Public Works  
7516 County Complex Road  
Hanover, VA 23069

(804) 365-6181

**October 2014**





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**A list of any new or terminated 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; ..... 42**

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**Background Information**

Name of MS4: Hanover County - Municipal Separate Storm Sewer System

Permit Number: VAR 040012

MS4 Contacts:

Below named are the lead person(s) responsible for the implementation of the terms and conditions of the permit.

Alexander P. Mease, E.I.T. – Civil Engineer II, Department of Public Works

Michael J. Dieter, P.E. – Engineering Manager, Department of Public Works

J. Michael Flagg, P.E. – Director of Public Works

These responsible persons can be reached at the Hanover County Department of Public Works, 7516 County Complex Road, Hanover Courthouse, Hanover, VA 23069, telephone (804) 365-6181, fax (804) 365-6233.

Annual Report Year: FY2014, July 1, 2013 – June 30, 2014 (Year 1 of MS4 permit implementation, permit cycle 2)

Modifications to roles and responsibilities: None

Number of New MS4 Outfalls and associated acreage by HUC added during the permit year:

| <b>New Outfall #</b> | <b>Acreage</b> | <b>HUC Designation</b> | <b>2010 Urbanized Area</b> |
|----------------------|----------------|------------------------|----------------------------|
| 117800160            | 2.65           | JL17                   | Y                          |
| 117800161            | 1.6            | JL17                   | Y                          |
| 117800162            | 2.06           | JL17                   | Y                          |
| 117800163            | 1.62           | JL17                   | Y                          |
| 117800164            | 3.6            | JL17                   | Y                          |
| 117800165            | 0.88           | JL17                   | Y                          |
| 117800166            | 0.29           | JL17                   | Y                          |
| 117800167            | 0.53           | JL17                   | Y                          |
| 117822174B           | 11.84          | JL17                   | Y                          |
| 117800168            | 1.28           | JL17                   | Y                          |
| 117800169            | 0.55           | JL17                   | Y                          |
| 117800170            | 7.78           | JL17                   | Y                          |
| 117800171            | 6.55           | JL17                   | Y                          |
| 117800172            | 15.75          | JL17                   | Y                          |
| 117800173            | 14.28          | JL17                   | Y                          |
| 117800174            | 15.82          | JL17                   | Y                          |
| 117800175            | 50             | JL17                   | Y                          |
| 117800176            | 1.12           | JL17                   | Y                          |

|            |        |      |   |
|------------|--------|------|---|
| 119800202  | 49.776 | JL19 | Y |
| 119800285  | 2.814  | JL19 | Y |
| 117800108B | 3.76   | JL17 | Y |
| 117800097  | 1.92   | JL17 | Y |
| 117800098  | 6.44   | JL17 | Y |
| 117800099  | 1.14   | HL17 | Y |
| 117800100  | 1.44   | JL17 | Y |
| 117800101  | 0.85   | JL17 | Y |
| 117800102  | 6.35   | JL17 | Y |
| 117800103  | 1.86   | JL17 | Y |
| 117800104  | 74.56  | JL17 | Y |
| 117800105  | 5.43   | JL17 | Y |
| 117800107  | 10.64  | JL17 | Y |
| 117800108  | 3.76   | JL17 | Y |
| 117800109  | 15.39  | JL17 | Y |
| 117800110  | 15.38  | JL17 | Y |
| 117800111  | 3.02   | JL17 | Y |
| 117800112  | 5.39   | JL17 | Y |
| 117800113  | 1.2    | JL17 | Y |
| 117800114  | 14.04  | JL17 | Y |
| 117800115  | 71.89  | JL17 | Y |
| 117800116  | 4.17   | JL17 | Y |
| 117800117  | 22.23  | JL17 | Y |
| 117800118  | 12.4   | JL17 | Y |
| 117800119  | 2.35   | JL17 | Y |
| 117800120  | 19.84  | JL17 | Y |
| 117800121  | 7.02   | JL17 | Y |
| 117800122  | 1.84   | JL17 | Y |
| 117800123  | 30.18  | JL17 | Y |
| 117800124  | 4.42   | JL17 | Y |
| 117800125  | 5.17   | JL17 | Y |
| 117800126  | 1.64   | JL17 | Y |
| 117800127  | 16.94  | JL17 | Y |
| 117800128  | 3.39   | JL17 | Y |
| 117800129  | 8.5    | JL17 | Y |
| 117800130  | 13.84  | JL17 | Y |
| 117800131  | 8.02   | JL17 | Y |
| 117800132  | 2.54   | JL17 | Y |
| 117800133  | 9.97   | JL17 | Y |
| 117800134  | 1.21   | JL17 | Y |
| 117800135  | 3.66   | JL17 | Y |
| 117800136  | 5.56   | JL17 | Y |
| 117800137  | 18.03  | JL17 | Y |

|            |       |      |   |
|------------|-------|------|---|
| 117800138  | 11.11 | JL17 | Y |
| 117800139  | 10.07 | JL17 | Y |
| 117800140  | 3.51  | JL17 | Y |
| 119800428  | 16.65 | JL19 | Y |
| 119800429  | 2.63  | JL19 | Y |
| 119800430  | 1.94  | JL19 | Y |
| 119800431  | 2.49  | JL19 | Y |
| 119800432  | 0.81  | JL19 | Y |
| 119800433  | 1.57  | YO30 | Y |
| 119800434  | 4.57  | YO30 | Y |
| 119800435  | 3.37  | YO30 | Y |
| 119800436  | 3.57  | YO30 | Y |
| 119800437  | 3.73  | YO30 | Y |
| 119800438  | 12.63 | YO30 | Y |
| 119800439  | 2.95  | YO30 | Y |
| 119800440  | 3.99  | YO30 | Y |
| 119800441  | 2     | YO30 | Y |
| 119800442  | 5     | YO30 | Y |
| 119800443  | 7.1   | YO30 | Y |
| 119800444  | 5.85  | YO30 | Y |
| 119800445  | 18.12 | YO30 | Y |
| 119800446  | 10.82 | YO30 | Y |
| 119800447  | 44.24 | YO30 | Y |
| 330100276B | 24.5  | YO30 | Y |
| 330800276  | 2.58  | YO30 | Y |
| 330800276A | 21.61 | YO30 | Y |
| 330800276B | 25.17 | YO30 | Y |
| 330800277  | 3.3   | YO30 | Y |
| 330800278  | 1.03  | YO30 | Y |
| 330800279  | 0.82  | YO30 | Y |
| 330800280  | 3.99  | YO30 | Y |
| 330800281  | 0.79  | YO30 | Y |
| 330800282  | 1.36  | YO30 | Y |
| 330800283  | 0.62  | YO30 | Y |
| 330800284  | 11.59 | YO30 | Y |
| 330800285  | 1.62  | YO30 | Y |
| 330800286  | 13.14 | YO30 | Y |
| 330800287  | 0.86  | YO30 | Y |
| 117800141  | 3.65  | JL17 | Y |
| 117800142  | 5.4   | JL17 | Y |
| 117800143  | 2.2   | JL17 | Y |
| 117800144  | 33.82 | JL17 | Y |
| 117800145  | 1.45  | JL17 | Y |

|                            |                           |      |   |
|----------------------------|---------------------------|------|---|
| 117800146                  | 5.29                      | JL17 | Y |
| 117800147                  | 2.31                      | JL17 | Y |
| 117800148                  | 5.22                      | JL17 | Y |
| 117800150                  | 1.93                      | JL17 | Y |
| 117800151                  | 1.45                      | JL17 | Y |
| 117800152                  | 47.63                     | JL17 | Y |
| 330800288                  | 7.13                      | YO30 | Y |
| 330800289                  | 5.37                      | YO30 | Y |
| 117800153                  | 3.99                      | JL17 | Y |
| 117800154                  | 36.97                     | JL17 | Y |
| 117800155                  | 11.88                     | JL17 | Y |
| 117800156                  | 3.98                      | JL17 | Y |
| 117800157                  | 23.86                     | JL17 | Y |
| 117800158                  | 19.67                     | JL17 | Y |
| 117800159                  | 8.94                      | JL17 | Y |
| 330800290                  | 24.27                     | YO30 | Y |
| 330800291                  | 54.3                      | YO30 | Y |
| <b>TOTAL ACREAGE</b>       | 1240.58                   |      |   |
| <b>To New MS4 Outfalls</b> | 121 New Outfalls<br>Added |      |   |

**CERTIFICATION STATEMENT AND SIGNATORY REQUIREMENTS  
FOR MS4 PERMIT APPLICATIONS AND REPORTS**

As required by 9VAC25-870-370 B, all reports required by state permits, and other information requested by the board, shall be signed by a responsible official or by a duly authorized representative of that person. A responsible official is:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) 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-making or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that 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 state 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 section, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

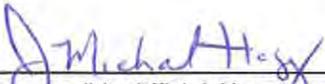
A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and
3. The written authorization is submitted to the department.

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**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.

 9-29-2014  
\_\_\_\_\_  
Responsible Official Signature Date  
**J. Michael Flagg, Director of Public Works**

VAR 040012 Hanover County - Municipal Separate Storm Sewer System  
Permit Number MS4 Name

Hanover County is currently compliant with the MS4 permit. The BMPs identified in Hanover Counties MS4 permit are intended to address discharges to all waters in the MS4 area and are effectively addressing discharges to impaired waters.

Following an annual review, target audiences and strategies were reviewed and determined to be appropriate for future outreach efforts. As required under the provisions of 9VAC 25-890 the MS4 Program Plan is updated to include the following additional plans: **Appendix A**

### **Compliance with Table 1 Schedule (MS4 Program Plan Updates)**

The following is a summary of Hanover County's Actions to comply with the requirements of the 2013 MS4 General Permit. The information provided in this section outlines the actions that the County has taken to update the County's MS4 Program Plan according to the schedule contained in Table 1 of the General Permit. Appendix A of the Annual Report contains each of the detailed plans summarized below.

#### **Public Education Outreach Plan, Minimum Control Measure 1**

Three high-priority stormwater issues that the County intends to focus on to comply with the requirements of the MS4 VPDES General Permit are:

- Chesapeake Bay TMDL
- Pet Waste Management Program (Pooch Pal)
- Commercial Site Inspections

Chesapeake Bay TMDL announcements will be included in the county newsletter (delivered to 100% of households), which will provide a weblink that directs citizens to more detailed information. Pet Waste Management information will be distributed to new and current dog owners (over 10,000) during registration/renewal. Commercial Site Inspections will be performed at 100% of all commercial businesses during the permit cycle.

#### **Illicit Discharge Procedures, Minimum Control Measure 3**

The County has developed and implemented dry weather field screening methodologies for unauthorized non-stormwater (illicit) discharges to the MS4. These written procedures include:

- A prioritized field screening schedule
- Minimum number of field screening activities
- Methodologies to collect general outfall information
- An investigation schedule relating to any observed illicit discharge
- Methodologies to determine the source of all illicit discharges
- Mechanisms to eliminate identified sources of illicit discharges
- Methods for conducting an illicit discharge follow-up investigation
- Investigation tracking

#### **Individual Residential Lot Special Criteria and Operator-Owned Stormwater Management Inspection Procedures, Minimum Control Measure 5**

The County uses maintenance agreements to ensure privately-owned (including individual residential lots) stormwater management facilities are in compliance with the MS4 Program. In concurrence with the maintenance agreement is an inspection schedule (at least once every 5 years) and enforcement strategy. Relevant documents include:

- Hanover County BMP Maintenance Agreement
- Hanover County Stormwater Basin Inspection and Maintenance Requirements
- Private Stormwater Facility Inspection Form for Owners
- Stormwater Facility Inspection Guidance Document for Facility Owners
- Private BMP Inspection Program Procedures

The updated Policies and Procedures for private and operator-owned stormwater management facilities include:

- Hanover County ordinances addressing legal authority for Maintenance Agreements.
- Stormwater management facilities that are designed and installed in accordance with water quality and water quantity measures (9VAC25-870), state and local design criteria, and department approved annual standards/specifications.
- Procedures for inspection, compliance and enforcement to ensure maintenance is conducted on private and operator-owned stormwater facilities.
- Stormwater management facility tracking, Appendix I.

**Identification of Locations Requiring SWPPPs, Minimum Control Measure 6**

The County has identified one high-priority facility within the MS4 permit area which is the Mechanicsville Solid Waste Convenience Center. The County will develop and implement a stormwater pollution prevention plan (SWPPP) specific to this site.

- SWPPP to be developed by July 1, 2017 and reported by October 1, 2017.

**Nutrient Management Plan, Minimum Control Measure 6**

The County has identified all applicable lands where nutrients are applied to a contiguous area of more than one acre:

- Atlee High School; 9.37 acres (2010 urbanized area)
- Chickahominy Middle School; 1.56 acres (2010 urbanized area)
- Lee-Davis High School; 6.28 acres
- Stonewall Jackson Middle School; 2.08 acres

A Nutrient Management Plan prepared by a certified nutrient planner has been developed by Hanover County Schools and is being used to manage nutrients within and outside of the MS4 area. The Nutrient Management Plan is effective until May 15, 2016

**Training Schedule and Program, Minimum Control Measure 6**

New pollution prevention and good housekeeping measures and a training schedule and program have been developed for implementation by the County. The new measures and associated training are designed to minimize impacts to stormwater by County operations.

**Compliance with TMDL Requirements:**

**Special conditions for approved total maximum daily loads (TMDL) other than the Chesapeake Bay TMDL:**

Table 1 Scheduled Submissions:

- 24 months after permit coverage, TMDLs approved before July 2008  
Not Applicable to Hanover County

- 36 months after permit coverage, TMDLs approved between July 2008 and June 2013 Chickahominy Bacterial TMDL Action Plan to be developed within 36 months of permit coverage or by July 1, 2016.

**Special condition for the Chesapeake Bay TMDL:**

Table 1 Scheduled Submission:

- 24 months after permit coverage, Chesapeake Bay TMDL Action Plan Chesapeake Bay TMDL Action Plan to be developed within 24 months of permit coverage or by July 1, 2015

The Chesapeake Bay TMDL Action Plan will be submitted in conjunction with Year 2 reporting for the current MS4 Permit cycle.

Projects currently planned for meeting nutrient reduction obligation under the Chesapeake Bay TMDL include the Church of the Creator stream restoration project and the Laurel Meadows pond retrofit project. Planned schedules for these projects are provided below. Both projects are currently ahead of schedule and are tentatively scheduled for construction in the summer of 2015.

| <i>Schedule item</i>                  | <b>Laurel Meadows ES</b> | <b>Church of the Creator</b> |
|---------------------------------------|--------------------------|------------------------------|
| Notice to proceed on design           | September 2015           | September 2016               |
| Completion of plans and specification | February 2015            | March 2017                   |
| Plans and specs approved              | May 2016                 | June 2017                    |
| Advertise for bids                    | June 2016                | July 2017                    |
| Bid opening                           | July 2016                | August 2017                  |
| Award contract                        | August 2016              | September 2017               |
| Construction time                     | June 2017-August 2017    | April 2018-October 2018      |
| <b>TOTAL</b>                          | 1 Year 11 Months         | 2 Years 1 Month              |

**Compliance with State Permit Conditions**

The status of compliance with state permit conditions, an assessment of the appropriateness of the identified best management practices, and progress towards achieving the identified measurable goals for each of the minimum control measures are provided below.

## **MINIMUM CONTROL MEASURE 1 - Public Education and Outreach**

### **Compliance with Table 1 Schedule**

Public Education and Outreach Plan - Three high-priority stormwater issues that the County intends to focus on to comply with the requirements of the MS4 VPDES General Permit are:

- Chesapeake Bay TMDL
- Pet Waste Management Program (Pooch Pal)
- Commercial Site Inspections

Chesapeake Bay TMDL announcements will be included in the county newsletter (delivered to 100% of households), which will provide a weblink that directs citizens to more detailed information. Pet Waste Management information will be distributed to new and current dog owners (over 10,000) during registration/renewal. Commercial Site Inspections will be performed at 100% of all commercial businesses during the permit cycle.

### ***Measurable Goal 1.a - Increased Individual and Household Knowledge***

#### **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.*

#### **Compliance with Permit Conditions**

The County is a financial supporter of the Hanover Caroline Soil and Water Conservation District (HCSWCD). The money provided by the County is used to support the water quality programs that the HCSWCD administers. The budget for fiscal year 2011 (July 1, 2010 to June 30, 2011) was \$98,500. The budget for fiscal year 2012 was \$95,545. The budget for fiscal year 2013 was \$92,680. The budget for fiscal year 2014 was \$92,680. The budget for fiscal year 2015 is \$92,680 and was adopted by the Hanover County Board of Supervisors on April 9, 2014.

#### **Meaningful Watershed Educational Experience (MWEE) April 22, 23, 24, 29, 30, 2014**

The Chesapeake 2000 Agreement mandates that all students of Pennsylvania, Maryland, and Virginia receive a meaningful Bay or stream outdoor experience prior to graduation from high school. Hanover-Caroline SWCD has taken the initiative to offer a large portion of this Meaningful Watershed Educational Experience to the middle school students within its localities. The District worked with Department of Environmental Quality to develop a written curriculum and offer field trips to all sixth grade students at Hanover and Caroline County public middle schools annually. This year MWEE was staged at Poor Farm Park in Hanover. The field trips included outdoor learning stations that focused on wetlands, water quality monitoring, macroinvertebrate identification, and riparian buffer assessment. Approximately 1,300 sixth grade students participated this year, with 55 individuals volunteering to lead the stations. Inclement weather forced the cancellation of the final two days of the event. The District expects to hold MWEE field trips for Hanover and Caroline County middle school students annually in the spring.

#### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

The watershed education for students increases individual and household knowledge of the impacts of developed land on stormwater and provides a direct association with the plants and

animals that can be impacted by improper management of resources, 1300 students were provided with this experience.

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*

Compliance with Permit Conditions

Hanover County continues to support the Master Gardeners Program and any requests to participate in the seminars for these educators. HCSWCD, with the help of Master Gardeners and other volunteers offered the following educational opportunities to Hanover and Caroline County Citizens this year:

**Hanover-Caroline SWCD FY2014 Educational Events  
July 1, 2013 – June 30, 2014**

**Youth Conservation Camp July 2013**

The District sponsored one high school student to attend the state Youth Conservation Camp at Virginia Tech for a week in July: Allison Frances Moyer, Lee-Davis High School, Hanover. The program is coordinated by the Virginia Association of Soil & Water Conservation Districts and focuses on natural resource education that includes hands-on study of soils, forestry, wildlife, aquatics, and urban land use issues.

**Jamestown 4-H Camp July 2013**

Provided classes on macroinvertebrates to 40 Hanover campers.

**50 Mile Meal July 24, 2013 and September 2013**

The District partnered with Virginia Cooperative Extension (VCE) to provide an all locally-sourced meal to each of the Hanover and Caroline County Boards of Supervisors, as well as Planning Commission members and heads of departments. All food was provided by local producers to highlight agriculture in the counties. District and VCE staff provided informational presentations.

**VACDE Annual Employees Training August 20-22, 2013**

The Virginia Association of Conservation District Employees hosted its annual state-wide District training at Graves Mountain Lodge in Syria, VA in August, 2013. District staff assisted with the organization and coordination, and participated in the educational, technical, and administrative break-out sessions for 118 employees. District staff members also served as Treasurer and Area III Representative of the VACDE throughout the year.

**Conference for Stewardship of Creation September 2013**

Staff spoke on role of conservation districts, coming stormwater regulations and individual responsibility.

**Hanover Ag Day October 15-16, 2013**

Each year the District participates in Hanover Ag Day at Poor Farm Park. This event is organized by Colonial Farm Credit for all third grade students at Hanover public schools. The District educated approximately 500 students on soils using a runoff/erosion demonstration and a “soil tunnel” display.

**State Fair of Virginia September-October 2013**

District staff participated in the Virginia Association of Soil & Water Conservation Districts educational booth at the State Fair of Virginia. The booth showcased a soil tunnel, soil profile activities and information on SWCD programs.

**State Fair of Virginia September-October 2013**

Staff planted cover crop demonstration and talked to fairgoers regarding the value of cover cropping and building healthy soils.

**Virginia Dare SWCD Farm Days Event September 2013**

For the past several years the District has supported the Virginia Dare SWCD by volunteering at their Farm Days Event in Virginia Beach. Approximately 1,200 first grade students in the Hampton Roads area attend this event to learn about agriculture and conservation.

**Annual Awards Banquet November 21, 2013**

Annually, the District recognizes outstanding conservationists in Hanover and Caroline Counties at an awards banquet. The banquet is a time each year to recognize individuals, organizations, and/or businesses that have practiced exceptional environmental stewardship. This year’s Clean Water/Bay Friendly Farm Award went to C.J. Isbell of Keenbell Farm in Vontay.

**VASWCD Annual Meeting/Training December 8-10, 2013**

The District participated in and assisted with the annual state meeting and training for soil and water conservation districts. District staff served on the Planning Committee for this event, assisted in the organization and logistics at the meeting, including display booths and the educational foundation auction. Also, a staff member led an educational session on cover crops for approximately 35 other employees.

**Stonewall Jackson Middle School FFA & Outdoor Club January 14, 2014**

Presentation on cover crops to joint meeting of 75 FFA and Outdoor Club members.

**Silver Stirrups Riding Club February 19, 2014**

Presentation on pasture management to riding club members.

**Farm Program Meeting February 25, 2014**

The District partnered with Farm Service Agency and Colonial Farm Credit to sponsor a Winter Producers Meeting on precision agriculture for 75 farmers in Hanover and Caroline Counties. Agricultural producers received information on FSA, USDA and District programs and services.

**James River Equipment Day March 19, 2014**

Staffed information booth on work of the H-C SWCD.

**Caroline Garden Club April 15, 2014**

Two staff members made a presentation to the Caroline Garden Club on the work of the Hanover-Caroline SWCD and the value of urban BMPs.

### **Fort A.P. Hill Earth Day April 17, 2014**

The District partnered with Natural Resources Conservation Service and hosted an educational booth at the Fort A.P. Hill Earth Day event. Approximately 900 middle school students and teachers attended. The booth demonstrations included a runoff/erosion display and an opportunity for students to make their own soil profiles.

### **Meaningful Watershed Educational Experience (MWEE) April 22, 23, 24, 29, 30, 2014**

The Chesapeake 2000 Agreement mandates that all students of Pennsylvania, Maryland, and Virginia receive a meaningful Bay or stream outdoor experience prior to graduation from high school. Hanover-Caroline SWCD has taken the initiative to offer a large portion of this Meaningful Watershed Educational Experience to the middle school students within its localities. The District worked with Department of Environmental Quality to develop a written curriculum and offer field trips to all sixth grade students at Hanover and Caroline County public middle schools annually. This year MWEE was staged at Poor Farm Park in Hanover. The field trips included outdoor learning stations that focused on wetlands, water quality monitoring, macroinvertebrate identification, and riparian buffer assessment. Approximately 1,300 sixth grade students participated this year, with 55 individuals volunteering to lead the stations. Inclement weather forced the cancellation of the final two days of the event. The District expects to hold MWEE field trips for Hanover and Caroline County middle school students annually in the spring.

### **Cover Crop Field Day May 8, 2014**

Staff presentation on H-C SWCD's cover crop program at Orange Research Station.

### **Mason-Dixon Red Angus Association 5/10/14**

Staff set up and presented H-C SWCD information booth at the field day for the association.

### **Envirothon May 1 & May 19-20, 2014**

Each year, Hanover-Caroline SWCD promotes and sponsors a yearly local competition open to all high schools in Hanover and Caroline County. The Envirothon is a natural resources competition for high school students. Students who participate learn stewardship and management concepts and work to solve real and hypothetical environmental problems. The District provides trainings and educational materials to teachers for preparing for the competition. H-C SWCD staff assisted with and teachers the Area III Competition (approximately 60 students and teachers) and the State Competition (approximately 126 students and teachers). The staff also participated in state Envirothon Advisory Committee Meetings.

### **Back to the Farm: Backyard Poultry June 14, 2014**

This was a continuation of a series of programs designed to educate the public on different agricultural opportunities. Forty-five (45) citizens attended the workshop which included expert Harvey Ussery and the farm of Molly Sharp.

### **Scholarships**

The District awarded two \$5000 scholarships in FY14 to outstanding, college-bound seniors within the localities of Hanover and Caroline Counties that planned to enroll in natural resource conservation, agricultural or environmental disciplines. This year the recipients were: Eric Scruggs of Atlee High School and Connor Orrock of Caroline High School.

### **CIG Multi-Species Cover Crop Program**

In FY2014, the District began year two of a three-year multi-species cover crop project, funded through a Natural Resources Conservation Service CIG grant. The overall project encompasses four SWCDs, eight counties and 32 producers who planted fall and summer multi-species cover crops. Soil quality changes are monitored. The 160 acre project influenced the planting of 1,920 acres of multi-species cover crops in fall 2012 and results have stimulated even more interest as the project progresses. Thus far, one information meeting was held and four presentations have been given about the project.

Associated deliverables for this grant were the Grazing Field Day at Keenbell Farm, VASWCD annual meeting presentation, the Soil Conservation Society annual meeting presentation and demonstration, the National Association of Conservation Districts national meeting proposal, the Orange Research Station field day and the State Fair of Virginia demonstrations.

### **Educational Tools**

In FY2014, the District lent out various models and tools to teachers and educated them on the use of the model in the classroom, and also used these tools at other events and programs.

The **Enviroscape Watershed Model** is an educational tool designed to show runoff and pollution effects. Approximately 150 students and adults were exposed to the watershed model at the following schools: Kersey Creek Elementary, Beaverdam Elementary and Washington-Henry Elementary. Staff developed and presented soils, watershed and Enviroscape presentations to 6 classes and their teachers so that the teachers could lead these same presentations in the future. The teachers were given powerpoint presentations afterward for their future use.

The **Soil Tunnel display** is a visual representation of the characteristics of soil; approximately 500 students and teachers used the soil tunnel at Hanover Ag Day and Caroline Ag Day.

The **Runoff Box display** is a tool that shows the effects of erosion and the importance vegetation as a means to prevent erosion. Approximately 950 students and adults received the Runoff Box demonstration at Hanover Ag Day, Caroline Ag Day, Fort A.P. Hill Earth Day. Fifty (50) students experienced the Runoff Box at Washington-Henry Elementary.

**Soil Tubes** were used at Fort A.P. Hill Earth Day, where approximately 100 elementary and middle school students made their own soil profiles.

### **Watershed/runoff public education**

As a pilot program, staff developed a brochure for Beaverdam Creek, surveyed Spring Meadow subdivision and compiled survey results for Hanover Public Works.

### **Urban VCAP Committee**

Staff participated on the Urban Committee and through a pilot program, created and published the *VCAP Implementation and Design Manual*, conferred on program development and BMP implementation through 4 grants. H-C SWCD proposed and was granted funds for a cistern. Other urban BMPs included turf conversion to natives, pet waste management and rain gardens.

### **VASWCD Education Committee**

One District staff member is an active member of the Virginia Association of Soil & Water Conservation Districts Education Committee. The VASWCD organizes training events and meetings for District directors and employees throughout Virginia.

### **Tributary Strategies Roundtables/TMDLs**

District staff and directors sit on three Roundtables and attend planning meetings throughout the year: Middle James Roundtable, York River and Small Coastal Basins Roundtable, Rappahannock River Basin Commission. These groups offer educational outreach to the communities in their respective watersheds. Staff also served on TMDL workshops for the Chickahominy and Pamunkey Rivers, as well as the Ag Committee and Executive Committee.

### **Media Outreach**

The District reaches its target audience in a variety of ways including rebuilding the website ([www.h-cswcd.org](http://www.h-cswcd.org)), a quarterly newsletter, and a Facebook page. The electronic newsletter, *Runoff*, reaches over 300 citizens. This list continues to grow as more individuals request to receive the newsletter. Social media outreach is growing successfully each month.

### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

The HCSWCD and the Master Gardener Program are both invaluable educational resources for the community. The above programs serve to increase individual and household knowledge by exposing participants to the topics outlined above. Over 6,500 individuals were exposed to educational resources to protect and conserve the environment as a result of the above programs.

### **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).*

### **Compliance with Permit Conditions**

It is the responsibility of pet owners to clean up behind their pet in any public setting to reduce the harmful effects of dog waste on water quality and human health. This program is designed to encourage proper disposal of pet waste.

Focusing on areas that are frequented by canines and their owners such as parks and subdivisions, Hanover County created the “Pooch Pal” program. This program consists of the placement of a County donated dispenser which is filled with regular plastic bags (supermarket bags) for use in proper pet waste collection and disposal. The “Pooch Pal” bag dispenser is mounted on signs located in high canine traffic areas. Volunteers or “Pooch Pals” ensure that the dispensers are filled with bags and they maintain a count of how many bags are used and report that information to the Hanover County Department of Public Works.

Within the past year of the MS4 Permit, 249 pounds of pet waste was properly disposed. For previous permit cycle data refer to the FY2013 annual report. The figures are based on the assumption of 8 oz of pet waste are disposed for each bag that is removed from the dispenser.

Provided here is a list of parks in Hanover County where the Pooch Pal bag dispensers have been placed and the number of dispensers at each location:

| Parks                        | # Dispensers |
|------------------------------|--------------|
| Taylor Park                  | 1            |
| Pole Green Park              | 2            |
| Montpelier Park              | 1            |
| Poor Farm Park               | 1            |
| Wayside Park                 | 1            |
| Courthouse Park              | 1            |
| North Anna Battlefield Park  | 1            |
| Washington Lacy Park         | 1            |
| Cold Harbor Battlefield Park | 1            |
| TOTAL                        | 10           |

During the previous MS4 permit, in an attempt to expand the “Pooch Pal” program, bag dispensers for the collection of pet waste were placed in neighborhoods. This expanded program relies on interested neighbors to keep bags supplied. Bag dispensers were placed in neighborhoods with active recycling programs. Neighborhoods that have bag dispensers installed are as follows:

| Subdivisions    | # Dispensers |
|-----------------|--------------|
| Madison Springs | 5            |
| Castlewood      | 8            |
| Oakhill Estates | 5            |
| Sinclair Manor  | 2            |
| Crump Creek     | 3            |
| Berry Point     | 3            |
| TOTAL           | 26           |

During the previous MS4 permit cycle, a pet waste flier was developed discussing the impact of pet waste on the environment. The waste fliers were distributed in the Beaverdam Creek Watershed. Further details can be found in the FY2013 annual report.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

The programs above increase individual and household knowledge by identifying pet waste as a pollutant and providing educational materials and resources to address the pollutant. Pet waste is a key source of pollutants in waters in Hanover County that are impaired for bacterial contamination. Encouraging the collection of these wastes and educating the public on the proper management of pet waste are effective measures to address this pollutant.

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

### ***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.*

### **Compliance with Permit Conditions Background**

During the previous MS4 permit cycle, Hanover County developed 3 new Informational Bulletins to assist construction site managers with proper management of potential sources of stormwater pollution. The bulletins are as follows:

Information Bulletin #3 – Construction Site Tips

Information Bulletin #4 – Construction Site Waste Management

Information Bulletin #5 – Construction Site Concrete Washout

The Stormwater Brochure is included on Hanover's web page at:

[http://www.hanovercounty.gov/PW/Stormwater\\_Brochure.pdf](http://www.hanovercounty.gov/PW/Stormwater_Brochure.pdf)

The erosion and sediment control site inspection checklist was updated to address proper control of concrete washout, litter, sanitary facilities, and chemical storage. Deficiencies or problems in these four areas that are observed on permitted construction sites during erosion and sediment control inspections are noted on the County's erosion and sediment control inspection report so that the construction site operator can address deficiencies that are observed.

### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

Information Bulletins serve to increase public employee and business, and public knowledge by providing general information related to implementation of VSMP construction site tips, waste management and concrete washout to distribute during construction site inspections.

### ***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.*

### **Compliance with Permit Conditions**

No employee education was required this year. The updated Training Schedule and Program is located under Minimum Control Measure 6.

For employee education accomplished during the previous permit cycle, please refer to the annual report for FY2013.

### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

Increasing employee awareness by providing training regarding the requirements of the MS4 permit including requirements for pollution prevention in municipal operations as well as awareness of the specific guidance that the County has developed to address potential sources of

stormwater pollutants are appropriate methods to increase employee knowledge of the practices to prevent pollution in municipal operations.

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

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

Compliance with Permit Conditions

Hanover County continues to maintain stormwater web resources and updates web resources as appropriate. The Hanover County website was revised to a new format on March 30, 2014.

Copies of the MS4 program plan and annual report are available at the following link:

[http://www.hanovercounty.gov/Property/Municipal-Separate-Storm-Sewer-System-Permit-\(MS4\)/](http://www.hanovercounty.gov/Property/Municipal-Separate-Storm-Sewer-System-Permit-(MS4)/)

Stormwater web resources developed in the last permit cycle are discussed in the FY2013 annual report.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Providing stormwater resources on the environmental portion of the Public Works webpage ensures that the MS4 Program Plan as well as MS4 Annual Reports and other stormwater program guidance and information are available in electronic format and makes the exchange of information to interested parties more efficient. Providing these resources serves to increase knowledge of these stormwater requirements and program performance to public employees, businesses, and the general public.

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

Compliance with Permit Conditions

Hanover County continues to maintain adopt-a-highway web resources and updates web resources as appropriate. The Hanover County website was revised to a new format on March 30, 2014. Descriptions and links to the adopt-a-highway program have been removed.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Providing information on the state's adopt-a-highway program through March 30, 2014 served to increase the general public's knowledge of opportunities to help clean up the environment and increase individual involvement.

*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.*

Compliance with Permit Conditions

Hanover County continues to maintain adopt-a-stream web resources and updates web resources as appropriate. The Hanover County website was revised to a new format on March 30, 2014. Descriptions and links to the adopt-a-stream program have been removed.

### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Providing information on the state's adopt-a-stream program through March 30, 2014 served to increase the general public's knowledge of opportunities to help clean up the environment and increase individual involvement.

### 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 water quality issues.*

### Compliance with Permit Conditions

This Year, the County conducted development community meetings on September 5, 2013 and March 19, 2014. Topics included updates on legislation, the stormwater regulations, VSMP construction permits, the regional stormwater program and nutrient offsets among other topics. A copy of the agenda for each meeting has been provided as an attachment and can be found in Appendix C.

### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Providing environmental resources at meetings with the development community ensures that businesses engaged in construction and design activities are aware of the latest information concerning environmental matters including Hanover's MS4 permit, erosion and sediment control, TMDL information, Chesapeake Bay preservation, and stormwater management. Providing these meetings serves to increase knowledge applicable environmental requirements and program performance to public employees, and development and engineering businesses engaged in construction activities.

### ***Measurable Goal 1.d. – Diverse Strategies***

#### 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.*

### Compliance with Permit Conditions (Continuous)

The County has employed diverse strategies to promote increased knowledge relating to the MS4 program. The County has conducted seminars with County employees and meetings with the development community. The HCSWCD has conducted classroom work and other educational efforts for students and other citizens of Hanover County including the items outlined in BMP 1.a., 1.b., and 1.c. The County continues to develop stormwater fact sheets and other guidance to assist the community as needed. The fact sheets developed in FY2009 provide information relative to the MS4 program at construction sites. In FY2009 the County worked with two high school students to develop educational materials that appeared in the newspaper, and in an educational flier. The students and County staff also appeared on local radio and discussed ways to reduce stormwater pollution. The County continues to support the State sponsored Chesapeake Club and the more recent Plant More Plants social marketing efforts. The diverse strategies outlined in this requirement and others related to public education and outreach meet the requirements of the general permit. In FY2011 of the MS4 Permit, a pet waste flier was

developed discussing the impact of pet waste on the environment. During the previous MS4 permit cycle, 3,900 waste fliers were distributed in the Beaverdam Creek Watershed 36 pet waste composters were distributed as part of the pet waste initiative. We estimate that up to 3.3 tons of pet waste will be properly disposed annually as a result of the distribution of the composters. In cooperation with the Pebble Creek Home Owners Association, 725 pet waste fliers were distributed in the Pebble Creek subdivision. The County's student-developed stormwater pollutant reduction flier was also distributed with this material. See also BMP 1.e.(2) for the various strategies employed to target audiences in Hanover.

#### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Diverse strategies are used to increase the public's knowledge of issues related to stormwater pollution. Strategies include providing information describing how to protect the environment via the County website, social media, meetings, classes, seminars, fliers, and the "Pooch Pal" program. Programs that the County implements or participates in include grass roots neighborhood recycling, DCR Social Marketing including the Chesapeake Club and Plant More Plants programs. Many of these programs are discussed in other areas of this report. These strategies are appropriate for the County and they are effective increasing the general public's knowledge regarding of the MS4 program and ways to address stormwater pollution and protect the environment.

#### ***Measurable Goal 1.e – Improved Outreach***

##### BMP 1.e.(1) – Identify audiences

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

#### Compliance with Permit Conditions

##### Target Audiences:

Development Community - The development community is a major focus of this educational effort. Sediment from regulated construction sites is one of the sources of stormwater pollution in the MS4 area. We believe that Hanover County's increased efforts to enforce erosion and sediment control regulations has had a positive impact on water quality by increasing compliance with Hanover's erosion and sediment control requirements. Since 2005 Hanover has issued 32 summonses at the district court level resulting in the assessment of a total of \$167,134 in fines. These cases resulted in 8 circuit court appeals all with favorable settlements or rulings. Separately, 13 civil charges have been assessed and collected in the amount of \$124,522. These court cases are all in addition to normal inspection and enforcement activities at construction sites. These funds have been invested in the erosion and sediment control program and training.

Hanover has focused on the implementation of appropriate sediment and erosion controls at its regular meetings with the development community. Hanover has made the development community aware of state and federal regulations that may require modifications to current stormwater management, and erosion and sediment control practices.

Hanover County has assisted the development community with their efforts to comply with the requirements of Virginia's VSMP general construction permit by making information available on the County's website that may be needed to prepare the Stormwater Pollution Prevention Plan (SWPPP) and other permit related documents.

General Public (lawn care, car owners, pet owners) - The general public and people engaged in lawn care in Hanover are another focus of our efforts. The County supports state sponsored environmental education efforts such as “Plant more Plants” and the “Chesapeake Club”. The County supports the “Plant More Plants” program with a link to the program website on the entry page to the Hanover Public works webpage. The County continues to support the Chesapeake Club effort that makes the general public aware that they can individually have an impact on water quality by applying fertilizer in the correct manner. During the previous MS4 permit cycle, the Department of Public Works sponsored two high school students who developed a number of educational materials including a flier, and a series of articles to appear in the local paper. The students were also interviewed on the radio regarding their project. The students discussed some simple ways individuals can protect water quality. For this educational effort, target audiences included people conducting home lawn care, people maintaining their own cars and generating oil and other materials and, pet owners. Details regarding these fliers and other information can be found in Appendix F of the FY2010 annual report. During the previous MS4 permit cycle, a pet waste flier was developed discussing the impact of pet waste on the environment. Approximately 3,900 pet waste fliers were distributed in the Beaverdam Creek Watershed and an additional 725 fliers were distributed in the Pebble Creek Subdivision. A copy of this flier can be found in Appendix C of the FY2013 annual report.

Commercial Businesses (retail establishments) – The County performs commercial site inspections of many businesses during the course of any year (see BMP 1.f.(1)). In FY2010 of the MS4 permit Hanover developed a letter that can be distributed to businesses when they are not properly managing their site. Commercial site inspections are intended to educate businesses regarding County requirements for managing wastes and the potential for these wastes to impact stormwater. Records of commercial inspections have been included in Appendix A.

Septic System Owners - Septic system owners continue to be a focus of our efforts. The County continues to implement the septic pumpout program which requires septic systems within Chesapeake Bay Preservation Areas to be pumped out once every five years. This is an ongoing program for all septic systems located within Chesapeake Bay Preservation Areas within the MS4 area as well as outside of the MS4 area. Details regarding this program can be found in at the following link

<http://www.hanovercounty.gov/Water-and-Sewer/Septic-Pump-Out/>

#### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

The development community, the general public (pet owners in particular), commercial businesses, and septic system owners have been specifically identified as the target audiences to focus on during this permit cycle. Efforts have been focused in areas of erosion and sediment control enforcement, pet waste initiatives, commercial site inspections, and septic pump out. These groups were initially identified as targets for improving outreach and our efforts have been effective in communicating with these groups. As a result of the MS4 program evaluation, annually, during the review of the MS4 annual report, prospective groups will be reviewed as possible targets for future efforts to improve outreach.

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

*Develop strategies to address target audiences identified under these provisions.*

Compliance with Permit Conditions

Hanover County has maintained and updated its website with additional stormwater information. The County has produced new stormwater information bulletins to be distributed at construction sites. With the assistance of local high school students, the County has produced a flier, information to appear in local newspapers regarding ways individual homeowners can prevent stormwater pollution. Hanover has implemented the septic pumpout program, and continues to support the State sponsored Chesapeake Club and the Plant More Plants social marketing efforts. We have implemented public education efforts which focused on the general public, Hanover employees, the development community, Hanover school students, and the master gardener program.

| Strategy  | Audience   |
|---|--|
| Website   | Web users, developers, engineers, builders, general public   |
| Social Media, YouTube CVWMA recycling in Hanover                            | Web users, general public  |
| Development community meetings  | Developers, engineers  |
| Watershed education for students/classes                                    | Hanover middle school students   |
| Employee education  | Hanover employees in the Departments of Parks and Recreation, Fleet Management, Facilities Management, Public Works, Fire and Emergency Services, Communications, Purchasing, Community Services Board, Public Utilities, School Board, and County Attorney’s Office |
| Pooch pal program   | Pet owners   |
| Grass roots neighborhood recycling  | Neighborhoods interested in recycling  |
| High school project...Flier, Newspaper, and Radio                           | People conducting home lawn care, people maintaining their own cars and generating oil and other potential pollutants and pet owners   |
| Fact sheets and other guidance (construction site info. bulletins, letters) | Construction sites, developers, county employees, commercial businesses  |
| Septic pumpout program  | Septic systems in Chesapeake Bay areas   |
| HCSWCD educational programs   | General public, middle school students   |
| Chesapeake Club and Plant More Plants programs sponsored by DCR             | General public   |
| Pet Waste, Septic Pumpout and other Fliers                                  | General public, pet owners, septic system owners   |

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

All of the groups and the strategies for each group in the table above are intended to improve outreach to the target audiences identified in the MS4 program plan. These diverse strategies and the target audiences chosen are effective and appropriate for Hanover County. As a result of the MS4 program evaluation, annually during the review of the MS4 annual report, prospective strategies will be reviewed for future efforts to improve outreach.

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.*

#### Compliance with Permit Conditions

Currently 17 subdivisions in Hanover have elected to participate in neighborhood recycling. A total of 2,837 homes are currently enrolled in this program. County procedures to apply for participation in the recycling program can be found as an attachment in Appendix G of the FY2013 annual report.

#### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Hanover's grass roots recycling approach identifies neighborhoods that are interested in pursuing recycling as a community/neighborhood rather than Hanover's traditional approach of recycling at convenience centers. When community meetings are held in support of Grass Roots Neighborhood Recycling, Hanover County makes other information available related to recycling, composting, the MS4 program, stormwater pollution, and other environmentally based activities.

#### ***Measurable Goal 1.f. – Targeted Strategies***

##### *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.*

#### Compliance with Permit Conditions

Inspections are conducted at 45 separate commercial sites 25 of which are stand-alone sites and 20 of which are shopping centers or strip stores. Sites are examined for areas with the potential to pollute stormwater runoff.

In FY2010 of the MS4 permit Hanover developed a letter to be distributed to businesses when they are not properly managing their site. This letter is intended to educate businesses regarding County requirements for managing waste and the potential for these wastes to impact stormwater. Please find a copy of the letter and an example of the records of these inspections included as an attachment in Appendix A. In FY2012, Hanover continues to inspect commercial sites and follow-up with site owners that are not properly managing potential pollutants. As a result of the MS4 program evaluation, during FY2012, checklists and inspection procedures were updated to address a wider array potential pollutant sources. Inspection procedures and records of inspections are included in Appendix A. A record of inspections performed in FY2014 can be found in Appendix E.

#### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Although not a specific requirement of the MS4 regulations, Hanover County has focused on commercial sites with a potential to pollute storm water as a targeted strategy to prevent stormwater pollution. The management of materials and wastes at these sites could provide an avenue for pollution to take place if wastes and other materials stored outdoors are not properly managed. These inspections are an effective targeted strategy to educate business owners.

## **MINIMUM CONTROL MEASURE 2 - Public Involvement/Public Participation**

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

#### ***BMP 2.a. – 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.*

#### **Compliance with Permit Conditions**

The Hanover MS4 program plan has been placed on the Public Works website and can be found at the following link: [http://www.hanovercounty.gov/Property/Municipal-Separate-Storm-Sewer-System-Permit-\(MS4\)/](http://www.hanovercounty.gov/Property/Municipal-Separate-Storm-Sewer-System-Permit-(MS4)/)

#### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

The Hanover County MS4 program plan has been placed on the Hanover County Website. This is an effective way to promote the availability of the MS4 program plan.

### ***Measurable Goal 2.b. – Provide Annual Report upon Request***

#### ***BMP 2.b. – Annual report provided upon request***

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

#### **Compliance with Permit Conditions**

The County will make copies of this annual report available upon request. Copies of all annual reports have been placed on the county website at the following link: [http://www.hanovercounty.gov/Property/Municipal-Separate-Storm-Sewer-System-Permit-\(MS4\)/](http://www.hanovercounty.gov/Property/Municipal-Separate-Storm-Sewer-System-Permit-(MS4)/)

#### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

The Hanover County MS4 annual report is placed on the Hanover County Website every year. Placing the annual report on the Hanover County website makes the report more readily available to interested parties.

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

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

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

#### **Compliance with Permit Conditions**

The York River and Small Coastal Basin Roundtable is a local group aimed at improving water quality. In the previous permit cycle, during Year 1 of the general permit the County participated in a Green Infrastructure Workshop sponsored by the York River and Small Coastal Basin Roundtable. In the previous permit cycle, during Year 5 of the MS4 Permit the County participated in another interactive session on green infrastructure planning followed by visits to stormwater LID projects in the Town of Ashland, sponsored by the York River and Small Coastal Basin Roundtable.

The Richmond Regional Planning District Commission (RRPDC) is a regional planning agency serving the Town of Ashland; the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan; and the City of Richmond. The RRPDC facilitates a regional environmental roundtable bringing together localities, local soil and water conservation districts and state regulators to discuss environmental issues including MS4 compliance, regulatory program implementation, TMDLs and program funding. The RRPDC facilitates water quality planning for the Richmond area and held workshops on Green Infrastructure Planning. Between September 2008 and April 2009, the RRPDC Green Infrastructure Center and the Capital Regional Land Conservancy undertook a cooperative project to document the Richmond Regions green infrastructure assets. Information regarding the program can be found at the following link.

[http://www.richmondregional.org/planning/Green\\_Infrastructure/green\\_infrastructure.htm](http://www.richmondregional.org/planning/Green_Infrastructure/green_infrastructure.htm)

Currently the RRPDC is participating in efforts to address the Chesapeake Bay TMDL.

#### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Hanover County has coordinated efforts concerning the Chesapeake Bay TMDL with the Richmond Regional Planning District Commission. Identifying organizations aimed at improving regional water quality is an appropriate way to determine local activities aimed at reducing pollutant loads.

## **MINIMUM CONTROL MEASURE 3 - Illicit Discharge Detection and Elimination**

### Compliance with Table 1 Schedule

Illicit Discharge Procedures - The County has developed and implemented dry weather field screening methodologies for unauthorized non-stormwater (illicit) discharges to the MS4. These written procedures include:

- A prioritized field screening schedule
- Minimum number of field screening activities
- Methodologies to collect general outfall information
- An investigation schedule relating to any observed illicit discharge
- Methodologies to determine the source of all illicit discharges
- Mechanisms to eliminate identified sources of illicit discharges
- Methods for conducting an illicit discharge follow-up investigation
- Investigation tracking

### ***Measurable Goal 3.a. – Illicit Discharge Program***

#### *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.*

### Compliance with Permit Conditions

The County currently has 915 outfalls in the MS4 area. All outfalls to be inspected have been divided for the five year permit cycle. The focus of Year 1 outfall inspections was older subdivisions many of which are on septic systems. During Year 1 of the MS4 permit, 161 outfalls were inspected. Please find an example of the records of these inspections included as an attachment in Appendix F.

### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Outfall screening/dry weather monitoring is an appropriate mechanism to detect illicit discharges to the storm sewer system.

### ***Measurable Goal 3.b. – Storm Sewer System Mapping***

#### *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.*

### Compliance with Permit Conditions

Generalized mapping of all areas of the MS4 discharging directly to impaired waters have been prepared and are included in Appendix F. The summary provided in Appendix F includes the acreage discharging to each HUC and impaired water. The County has completed a procedure to add new outfalls to the stormwater outfall database

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Outfalls have been mapped as required by the regulations. Mapping of the Hanover County storm sewer system is currently under way. Mapping outfalls is an appropriate way to begin storm sewer system mapping and is required by the current regulations.

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

*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.*

Compliance with Permit Conditions

This activity was completed in Year 4 of the previous MS4 permit. The ordinance review can be found in Appendix S of the FY2013 annual report.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Reviewing regulations periodically to ensure consistency with federal and state regulations is an appropriate way to ensure County ordinances prohibit non-stormwater discharges in a manner consistent with applicable state and federal requirements.

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

*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.*

Compliance with Permit Conditions

The County currently has 915 outfalls in the MS4 area. All outfalls to be inspected have been divided for the five year permit cycle. The focus of Year 1 outfall inspections was older subdivisions many of which are on septic systems. During Year 1 of the MS4 permit 161 outfalls were inspected. Please find an example of the records of outfall data and inspections which have been included as an attachment in Appendix F.

Hanover has developed a letter to be distributed to property owners in areas where dumping has occurred. The letter is distributed to the homeowners at the time dumping is discovered to inform them of the ordinances related to illegal dumping. A copy of the letter has been provided as an attachment and can be found in Appendix J of the FY2013 annual report.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Dry weather monitoring procedures and checklists have been developed. Dry weather monitoring is an appropriate way to detect illicit discharge.

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

#### ***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.*

#### ***Compliance with Permit Conditions***

Hanover has developed procedures describing how to respond to illicit discharges. These procedures have been coordinated with the office of the Fire Marshall. A copy of these procedures has been provided as an attachment and can be found in Appendix A.

#### ***Appropriateness and Effectiveness of BMP of Addressing Measurable Goal***

Procedures for illicit discharge response help prevent or minimize the discharge of Hazardous substances to surface waters and the MS4.

### ***Measurable Goal 3.f. – Track Illicit Discharge***

#### ***BMP 3.f. – Illicit discharge tracking reporting***

*Illicit discharge tracking – report annually any illicit discharges.*

#### ***Compliance with Permit Conditions***

Hanover has developed a spreadsheet to track illicit discharges. There were several documented instances of potential illicit discharge identified during Year 1 of the MS4 permit term. The following information is a general summary of the County's actions in each case:

- Rick's Tire and Auto – Discharge of drainage from sink to storm sewer system. NOV sent to business. Business has agreed to cease discharge. Any future discharge of this type will require a SWPPP on the part of the business to address this issue.

A copy of the illicit discharge tracking spreadsheet has been provided as an attachment and can be found in Appendix G.

#### ***Appropriateness and Effectiveness of BMP of Addressing Measurable Goal***

Illicit discharge response in Year 1 remains a well-coordinated effort. All procedures appear to be working appropriately. No modifications to the illicit discharge tracking and response procedures appear necessary. The BMP is effective.

### ***Measurable Goal 3.g. – Downstream MS4 Notification***

#### ***BMP 3.g. –Notification Required***

Notifications have been sent to the Town of Ashland and the Virginia Department of Transportation (VDOT) identifying the potential for interconnections.

#### ***Appropriateness and Effectiveness of BMP of Addressing Measurable Goal***

Notification of the Town of Ashland and VDOT is appropriate to address the requirement for downstream MS4 notification.

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

#### ***BMP 3.h.(1) – Assign-A-Highway***

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

*Pamunkey Regional Jail Crew*

*Hanover County Community Corrections*

*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.*

#### **Compliance with Permit Conditions**

The County is currently working with the 2 groups to reduce roadway litter and floatable wastes entering stormwater infrastructure:

#### **Pamunkey Regional Jail – Female Inmate Work Program**

Pamunkey Regional Jail staff members are responsible to properly screen female inmate workers for roadway litter removal. Public Works provides the approved inmate workers with transportation, safety equipment, training on equipment use, access to drinking water and the use of toilet facilities. Public Works staff employees provide direct supervision of inmate workers. The intent of this program is to remove roadway litter from areas accessible from the roadway shoulder. Litter is collected in trash bags and left roadside for pick-up and proper disposal by VDOT. Litter removal totals are recorded after each day of work. Primary routes for roadway litter removal are Rt. 301, Rt. 360, Rt. 54, Beaverdam Road, Lewistown Road, New Ashcake Road, Pole Green Road and Verdi Lane. Hot spots for roadway litter removal are identified throughout the County and the litter is targeted for removal. During Year 1, this program removed 25,290 pounds of litter from County roadways.

#### **Department of Corrections - Division of Community Corrections District #41**

This program is currently suspended and trash is address through the other programs listed.

#### **Hanover County Community Corrections, Pretrial Services, and Juvenile Court Services**

Community Corrections and Pretrial Services staff members screen probationers for community service and provide information to contact appropriate staff at Public Works. Probationers are assigned to work in one of the six Convenience Centers for their designated number of community service hours. Probationers sign in at the designated Convenience Center and work as needed inside the facility and on adjacent roads collecting litter. Juveniles will participate in the program a couple times throughout the year. During Year 1, this program removed 6,435 pounds of litter from County roadways.

#### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

The County's litter programs effectively remove trash from the highways and are effective minimizing illicit discharge to the MS4.

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))*

Compliance with Permit Conditions

It is the responsibility of pet owners to clean up behind their pet in any public setting to reduce the harmful effects of dog waste on water quality and human health. This program is designed to encourage proper disposal of pet waste.

Focusing on areas that are frequented by canines and their owners such as parks and subdivisions, Hanover County created the “Pooch Pal” program. This program consists of the placement of a County donated dispenser which is filled with regular plastic bags (supermarket bags) for use in proper pet waste collection and disposal. The “Pooch Pal” bag dispenser is mounted on signs located in high canine traffic areas. Volunteers or “Pooch Pals” ensure that the dispensers are filled with bags and they maintain a count of how many bags are used and report that information to the Hanover County Department of Public Works.

Within the past year of the MS4 Permit, 249 pounds of pet waste was properly disposed. The figures are based on the assumption of 8 oz of pet waste are disposed for each bag that is removed from the dispenser. Provided here is a list of parks in Hanover County where the Pooch Pal bag dispensers have been placed and the number of dispensers at each location:

| Parks                        | # Dispensers |
|------------------------------|--------------|
| Taylor Park                  | 1            |
| Pole Green Park              | 2            |
| Montpelier Park              | 1            |
| Poor Farm Park               | 1            |
| Wayside Park                 | 1            |
| Courthouse Park              | 1            |
| North Anna Battlefield Park  | 1            |
| Washington Lacy Park         | 1            |
| Cold Harbor Battlefield Park | 1            |
| TOTAL                        | 10           |

During the previous MS4 permit, in an attempt to expand the “Pooch Pal” program, bag dispensers for the collection of pet waste were placed in some neighborhoods. This expanded program will rely on interested neighbors to keep bags supplied. Bag dispensers were placed in neighborhoods with active recycling programs. Neighborhoods that have bag dispensers installed are as follows:

| Subdivisions    | # Dispensers |
|-----------------|--------------|
| Madison Springs | 5            |
| Castlewood      | 8            |
| Oakhill Estates | 5            |
| Sinclair Manor  | 2            |
| Crump Creek     | 3            |
| Berry Point     | 3            |
| TOTAL           | 26           |

During the previous MS4 permit cycle, a pet waste flier was developed discussing the impact of pet waste on the environment. The waste fliers were distributed in the Beaverdam Creek Watershed. Further details can be found in the FY2013 annual report.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

The programs above increase individual and household knowledge by identifying pet waste as a pollutant and providing educational materials and resources to address the pollutant. Pet waste is a key source of pollutants in waters in Hanover County that are impaired for bacterial contamination. Encouraging the collection of these wastes and educating the public on the proper management of pet waste are effective measures in addressing this pollutant.

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

*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.*

Compliance with Permit Conditions

As part of Earth Day on April 22, 2014 (postponed to May 31, 2014), Hanover County sponsored a Household Hazardous Waste Collection day at the Solid Waste Convenience Center located in Mechanicsville. The three parts of the event include document shredding, e-waste collection, household hazardous waste collection, and prescription and over the counter drug collection.

E-wastes include:

Computer systems, computer accessories, printers, scanners, and copiers, telephones and cell phones, fax machines, VCRs and camcorders, stereos, microwaves, fluorescent light bulbs, other appliances, televisions and computer monitors.

Household hazardous wastes include:

Liquids aerosols and solids including flammables, organics, mercury switches and thermometers, oxidizers, pesticides and herbicides, corrosives, over the counter non-controlled drugs.

At the County’s six convenience centers, the County routinely accepts paint, oil, antifreeze, oil filters, and car batteries. At the transfer station the County routinely accepts e-waste. Category 1 and 2 special wastes are also collected as listed below:

- Category 1 - Oil based paints, varnishes, shellac, stains and tints, lacquer thinners, polyurethane, primers, paint reducers, varsol, mineral spirits, turpentine, flammable solvents, oil additives, gasoline, gasoline additives, cooking oil

- Category 2 - Used motor oil, automatic transmission fluid, power steering fluid, gear oil, hydraulic oil, diesel fuel, kerosene (#2, 4, 6), brake fluid.

The Central Virginia Waste Management Authority (CVWMA) promotes waste management and recycling activities of member jurisdictions. Information on Hanover County hazardous waste management, special waste management and recycling programs are provided on the CVWMA website. Hanover's recycling program was featured on the local news on May 19, 2010. This local news coverage has been placed on YouTube and is available through a CVWMA YouTube link. (see <http://www.youtube.com/watch?v=yWSbrEH3KLY>) Press releases for the County waste management activities and earth day activities can be found in Appendix J.

#### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Education of the public regarding the proper disposal of waste materials is an appropriate way to promote the proper disposal of waste and encourage recycling. These services are available in Hanover and are discussed on the county website and through the Central Virginia Waste Management Authority.

#### 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.*

#### Compliance with Permit Conditions

The Department of Public Works continued the street sweeping program to improve the appearance of Hanover County's roadways and to reduce the pollutants in runoff. Roads in Hanover County are under the control of the Virginia the Department of Transportation. Hanover County, with the cooperation of VDOT, has initiated a program to clean local roadways. Public Works used a rented street sweeping machine and operated on major thoroughfares in the County including Bell Creek, Pole Green, Meadowbridge, Atlee, Shady Grove, Lakeridge Parkway, part of US 1 to Sliding Hill, parts of Mechanicsville Turnpike and other roadways. A total of 175 tons of potential pollutants were removed from Hanover's public roads this year. Sweeping was conducted in April 2014. All materials from street sweeping are properly disposed in a sanitary landfill.

## **MINIMUM CONTROL MEASURE 4 - Construction Site Stormwater Runoff Control**

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

#### **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.*

#### **Compliance with Permit Conditions**

Hanover County's erosion and sediment control program is currently deemed to be consistent with state requirements for a locally administered program. See letters of consistency Appendix L.

#### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

Hanover has implemented a program to address construction site runoff that is consistent with all applicable state requirements.

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

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

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

#### **Compliance with Permit Conditions**

Plan reviewers, inspectors and appropriate managers in the Department of Public Works maintain E&S certifications. In addition, appropriate managers and inspectors in the Building Inspections Department maintain E&S certification. A list of certified employees in Hanover County can be found as an attachment in Appendix H.

#### **Appropriateness and Effectiveness of BMP of Addressing Measurable Goal**

Providing a list of personnel certified for sediment and erosion control ensures employees are up to date with required certifications.

### ***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.*

#### **Compliance with Permit Conditions**

Hanover County tracks regulated land disturbing activities and the associated acreage. A report is submitted on a monthly basis to the Department of Conservation and Recreation documenting new regulated land disturbance activities in Hanover County. A copy of this report can be found in Appendix D.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

A report describing permitted land disturbing activities is provided on a monthly basis to DCR.  
The report is effective addressing the measurable goal.

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

### Compliance with Table 1 Schedule

Individual Residential Lot Special Criteria and Operator-Owned Stormwater Management Inspection Procedures - The County uses maintenance agreements to ensure privately-owned (including individual residential lots) stormwater management facilities are in compliance with the MS4 Program. In concurrence with the maintenance agreement is an inspection schedule (at least once every 5 years) and enforcement strategy. Relevant documents include:

- Hanover County BMP Maintenance Agreement
- Hanover County Stormwater Basin Inspection and Maintenance Requirements
- Private Stormwater Facility Inspection Form for Owners
- Stormwater Facility Inspection Guidance Document for Facility Owners
- Private BMP Inspection Program Procedures

The updated Policies and Procedures for private and operator-owned stormwater management facilities include:

- Hanover County ordinances addressing legal authority for Maintenance Agreements.
- Stormwater management facilities that are designed and installed in accordance with water quality and water quantity measures (9VAC25-870), state and local design criteria, and department approved annual standards/specifications.
- Procedures for inspection, compliance and enforcement to ensure maintenance is conducted on private and operator-owned stormwater facilities.
- Stormwater management facility tracking, Appendix I.

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

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

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

### Compliance with Permit Conditions

Hanover County implements and enforces a stormwater program consistent with state regulations.

### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Hanover County's stormwater program is in the process of being modified per updated state regulations. Controlling the quality and quantity of stormwater discharged to surface waters to required levels protects water quality.

#### ***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*

Compliance with Permit Conditions

Hanover County requires all facility owners to submit evidence of submitting for registration under a VSMP construction permit from the State prior to approving any plan that requires a VSMP permit.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Obtaining evidence of registration for a VSMP construction permit prior to issuance of a land disturbance permit is an appropriate way to ensure that stormwater at construction sites is managed consistent with State regulations.

*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.*

Compliance with Permit Conditions

Hanover County requires maintenance agreements for all new private stormwater basins. Maintenance agreements require that periodic inspections be completed in order to determine if privately managed facilities are being properly maintained. Hanover worked with the Hanover Business Center Chamber of Commerce to update the maintenance agreement to clarify the mutual understanding of requirements consistent with state requirements

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Maintaining records of inspection and maintenance are effective ways to ensure the proper operation and maintenance of stormwater facilities.

*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*

Compliance with Permit Conditions

The County maintains files for all public and private stormwater basins. Files for public facilities include inspection and maintenance records. Files for private facilities include the results of any County inspections, results from any private contractor inspections, and any certifications submitted on behalf of the facility owner/operator. See Appendix I for spreadsheet tracking for new stormwater facilities.

Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Maintaining records of inspection and maintenance are effective ways to ensure the proper operation and maintenance of stormwater facilities.

*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.*

### Compliance with Permit Conditions

Tracking information for all known permanent stormwater management facilities that discharge to the regulated small MS4 is provided in Appendix I. New tracking elements including acres treated by the facility with pervious and impervious information, the sixth order hydraulic unit where the facility is located, the name of impaired segments, and the date the facility was brought online has been added to the tracking database and will be updated during the permit cycle.

### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Maintaining records of inspection and maintenance are effective ways to ensure the proper operation and maintenance of stormwater facilities.

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

### Compliance with Table 1 Schedule

Identification of Locations Requiring SWPPPs - The County has identified one high-priority facility within the MS4 permit area which is the Mechanicsville Solid Waste Convenience Center. The County will develop and implement a stormwater pollution prevention plan (SWPPP) specific to this site.

- SWPPP to be developed by July 1, 2017 and reported by October 1, 2017.

Nutrient Management Plan - The County has identified all applicable lands where nutrients are applied to a contiguous area of more than one acre:

- Atlee High School; 9.37 acres (2010 urbanized area)
- Chickahominy Middle School; 1.56 acres (2010 urbanized area)
- Lee-Davis High School; 6.28 acres
- Stonewall Jackson Middle School; 2.08 acres

A Nutrient Management Plan prepared by a certified nutrient planner has been developed by Hanover County Schools and is being used to manage nutrients within and outside of the MS4 area. The Nutrient Management Plan is effective until May 15, 2016.

Training Schedule and Program - New pollution prevention and good housekeeping measures and a training schedule and program have been developed for implementation by the County. The new measures and associated training are designed to minimize impacts to stormwater by County operations.

### ***Measurable Goal 6.a. – Employee Education***

#### 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.*

### Compliance with Permit Conditions

No employee education was required this year. The updated Training Schedule and Program is located under Minimum Control Measure 6.

For employee education accomplished during the previous permit cycle, please refer to the annual report for FY2013.

### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Providing training and refocusing and providing reminders of applicable requirements are effective ways to focus employee attention on the stormwater program.

## ***Measurable Goal 6.b. – Operation and maintenance programs***

### ***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.*

### ***Compliance with Permit Conditions***

The County maintains files for all public and private stormwater basins. Files for public facilities include inspection and maintenance records. Files for private facilities include the results of any County inspections, results from any private contractor inspections, and any certifications submitted on behalf of the facility owner/operator. See Appendix I for spreadsheet tracking for new stormwater facilities.

### ***Appropriateness and Effectiveness of BMP of Addressing Measurable Goal***

Maintaining records of inspection and maintenance are effective ways to ensure the proper operation and maintenance of stormwater facilities.

## ***Measurable Goal 6.c. – Illicit Discharge Elimination***

### ***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.*

### ***Compliance with Permit Conditions***

A policy document regarding illicit discharge was to be developed in FY2010 of the permit. Policy documents for illicit discharge and car washing have been developed and provided to all applicable facilities. A copy of the document can be found in the training materials in Appendix A. Site inspection policies and checklists were developed in FY2011 and finalized in FY2012 of the permit. A comprehensive list of municipal facilities, inspection goals, and checklists can be found in Appendix T of the FY2013 annual report.

### ***Appropriateness and Effectiveness of BMP of Addressing Measurable Goal***

Inspections of County facilities are an effective measure to ensure site manager knowledge of illicit discharge policies.

## ***Measurable Goal 6.d. – Material Management***

### ***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.*

### ***Compliance with Permit Conditions***

The policy document regarding materials management was developed in Year 2 of the previous permit cycle. The policy document has been developed and provided to all applicable facilities.

A copy of the document can be found in the Training Materials in Appendix A. Site inspection policies and checklists were developed in Year 3 and finalized in Year 4 of the previous permit cycle. A comprehensive list of municipal facilities, inspection goals, and checklists can be found in Appendix T of the FY2013 annual report.

#### Appropriateness and Effectiveness of BMP of Addressing Measurable Goal

Inspections of County facilities are an effective measure to ensure site manager knowledge of materials management policies.

#### **Results of information collected and analyzed, including monitoring data, if any, during the reporting period;**

##### Compliance with Permit Conditions

The County currently has 915 outfalls in the MS4 area. All outfalls to be inspected have been divided for the five year permit cycle. The focus of Year 1 outfall inspections was older subdivisions many of which are on septic systems. During Year 1 of the MS4 permit 161 outfalls were inspected. Please find an example of the records of outfall data and inspections which have been included as an attachment in Appendix F.

#### **A summary of the stormwater activities the operator plans to undertake during the next reporting cycle;**

The County will undertake the activities outlined under the new regulations Table 1 of 9VAC 25-890 and identified to be completed within 24 months of permit coverage including:

- Chesapeake Bay TMDL Action Plan
- Stormwater Management Progressive Compliance and Enforcement
- Daily Good Housekeeping Procedures

#### **A change in any identified best management practices or measurable goals for any of the minimum control measures including steps to be taken to address any deficiencies;**

The following changes were made to the County's best management practices:

##### Compliance with Table 1 Schedule

A summary of information outlining compliance with the schedule for the preparation of the plans outlined in Table 1 can be found on Page 6. The required plans themselves can be found in Appendix A. In addition, a summary of the required submissions for each Minimum Control Measure can be found in the following sections:

- Public Education Outreach Plan, refer to page 9
- Illicit Discharge Procedures, refer to page 25
- Individual Residential Lot Special Criteria, refer to page 34
- Operator-Owned Stormwater Management Inspection Procedures, refer to page 34
- Identification of Locations Requiring SWPPPs, refer to page 37
- Nutrient Management Plan, refer to page 37
- Training Schedule and Program, refer to page 37

Number of New MS4 Outfalls added during the permit year: 121

**Notice that the operator is relying on another government entity to satisfy some of the permit obligations (if applicable) ;**

The County has a current Memorandum of Understanding with Hanover Caroline Soil and Water to conduct public education efforts outlined in the County's MS4 registration statement including the following BMPs:

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

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

A copy of the memorandum can be found in Appendix K.

In an effort to improve implementation of the MS4 program, the County and the Hanover County School Board signed a Memorandum of Understanding. A copy of the memorandum can be found in Appendix K.

**The approval status of any programs pursuant to Section II C (if appropriate), or the progress towards achieving full approval of these programs;**

*(Alternative programs to implement 6 minimum control measures. Program approval status and third party implementation ...Not applicable)*

*Existing Program Requirements 4 VAC 50-60-1240 Section II C*

*C. If an existing program requires the implementation of one or more of the minimum control measures of Section II B, the operator, with the approval of the board, may follow that program's requirements rather than the requirements of Section II B. A program that may be considered includes, but is not limited to, a local, state or tribal program that imposes, at a minimum, the relevant requirements of Section II B.*

*The operator's MS4 Program Plan shall identify and fully describe any program that will be used to satisfy one or more of the minimum control measures of Section II B.*

*If the program the operator is using requires the approval of a third party, the program must be fully approved by the third party, or the operator must be working towards getting full approval. Documentation of the program's approval status, or the progress towards achieving full approval, must be included in the annual report required by Section II E 3 .*

**Compliance with Permit Conditions**

There is no existing program with minimum control measures that are different from the regulation.

**Information required pursuant to Section I B 9;**

*(TMDL related information...Not applicable)*

*TMDL WLA Requirement 4 VAC 50-60-1240 Section II E*

*Along with reporting requirements in Section II E, the operator shall include the following with each annual report:*

*a. Copies of any updates to the MS4 Program Plan completed during the reporting cycle and any new information regarding the TMDL in order to*  
**VIRGINIA SOIL AND WATER CONSERVATION BOARD**  
**4VAC50-60, SMALL MS4 GENERAL PERMIT (FINAL)**

*evaluate its ability to assure the consistency of its discharge with the assumptions of the TMDL WLA.*

*b. The estimate of the volume of stormwater discharged, in cubic feet, and the quantity of pollutant identified in the WLA, in a unit consistent with the WLA discharged by the regulated small MS4 for each WLA.*

#### Compliance with Permit Conditions

The Chickahominy Bacterial TMDL was approved on March 25, 2013. According to the new MS4 permit regulations a TMDL action plan will be developed within 36 months of permit coverage or by July 1, 2016. Therefore no reporting is required at this time.

#### *Evaluation and Assessment .Requirements*

##### *1. Evaluation.*

*a. The operator must annually evaluate:*

*(1) Program compliance ;*

*(2) The appropriateness of the identified BMPs (as part of this evaluation, the operator shall evaluate the effectiveness of BMPs in addressing discharges into waters that are identified as impaired in the 2006 305(b)/303(d) Water Quality Assessment Integrated Report); and*

*(3) Progress towards achieving the identified measurable goals.*

*b. The operator must evaluate its MS4 Program once during the permit cycle using the "Municipal Stormwater Program Evaluation Guidance," Environmental Protection Agency EPA-833-R-07-003. Such information shall be utilized when reapplying for permit coverage. Results of this evaluation shall be kept on file and made available during audits and inspections.*

#### Compliance with Permit Conditions

Hanover County is currently compliant with the MS4 permit. The BMPs identified in Hanover Counties MS4 permit are intended to address discharges to all waters in the MS4 area and are effectively addressing discharges to impaired waters.

In FY2012 a program evaluation consistent with "*Municipal Stormwater Program Evaluation Guidance,*" Environmental Protection Agency EPA-833-R-07-003 was conducted by EEE Consulting, Inc. The results of the evaluation are provided in Appendix R of the FY2013 annual report. The results of the evaluation will be used when reapplying for permit coverage and shall be kept on file and made available during audits and inspections as stated in 4VAC50-60-1240 Sect. II E.1.b.

#### **The number of illicit discharges identified and the narrative on how they were controlled or eliminated pursuant to Section II B 3 f;**

#### Compliance with Permit Conditions

There were several instances of potential illicit discharge identified during Year 5 of the MS4 permit term. The following information is a general summary of the County's actions in each case:

- Rick's Tire and Auto – Discharge of drainage from sink to storm sewer system. NOV sent to business. Business has agreed to cease discharge. Any future discharge of this type will require a SWPPP on the part of the business to address this issue.

This information will be tracked in our illicit discharge tracking spreadsheet which can be found as an attachment in Appendix G.

**Regulated land-disturbing activities data tracked under Section II B 4 c;**

Hanover County tracks all regulated land disturbing activities and the associated acreage. A report is submitted on a monthly basis to the Department of Conservation and Recreation documenting new land disturbance activities in Hanover County. A copy of this report can be found in Appendix D.

**All known permanent stormwater management facility data tracked under Section II B 5 b (6) submitted in a database format to be prescribed by the department. Upon filing of this list, subsequent reports shall only include those new stormwater management facilities that have been brought online;**

New stormwater facility information can be found in Appendix I.

**A list of any new or terminated 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;**

The County's has a current Memorandum of Understanding with Hanover Caroline Soil and Water to conduct public education efforts outlined in the County's MS4 registration statement including the following BMPs:

- BMP 1.a.(1) - Watershed education for students
- BMP 1.a.(2) - Support of Master Gardeners program

In an effort to improve implementation of the MS4 program, the County and the Hanover County School Board signed a Memorandum of Understanding. A copy of the memorandum can be found in Appendix K.

**Copies of any written comments received during a public comment period regarding the MS4 Program Plan or any modifications.**

No comments were received during the adoption of the MS4 program plan by the Hanover County Board of Supervisors on November 14, 2007.

## APPENDICES

- Appendix A - MS4 Program Plan Updates
- Appendix B - VSMP 2000 & 2010 Urbanized Census Area Maps
- Appendix C - Development Community Meeting Agenda
- Appendix D - Total Land Disturbance Report FY2014
- Appendix E - Commercial Site Inspections
- Appendix F - Outfall Information
- Appendix G - Illicit Discharge Spreadsheet
- Appendix H - E&S Certifications
- Appendix I - Stormwater BMP Summary
- Appendix J - Recycling and Earth Day Announcements
- Appendix K - Schools MOU
- Appendix L - Program Approvals

## **Appendix A - MS4 Program Plan Updates**

**Public Education and Outreach Plan**  
**Appendix A1**

## Public Education and Outreach Plan

### (Minimum Control Measure 1)

*Identify 3 high priority stormwater issues [9 VAC 25-890-40 Section II B1(c)(1)]*

Three priority stormwater issues that the County intends to focus on to comply with the requirements of the MS4 VPDES General Permit are:

1. Chesapeake Bay TMDL
2. Poochpal/pet wastes
3. Commercial site inspections

#### 1. Chesapeake Bay TMDL

The County will inform residents of the requirements of the Chesapeake Bay TMDL and the obligation to address the TMDL under the provisions of the MS4 permit.

- Target Audience Size (reaching 20% of Audience annually)
  - Entire County – (100% of households) The Hanover Review newsletter is sent to all households in Hanover County \_ times per year. Information will be included in the newsletter directing interested individuals to the County website for more information regarding the Chesapeake Bay TMDL. By placing an announcement in the newsletter, the County will be able to reach the entire target audience in first year. The minimum requirement is reaching 20% of the target audience annually.
  - Annually, features provided in the Hanover Review will continue to direct interested residents to more detailed information on the web site providing the latest updates regarding the Chesapeake Bay TMDL, and the County's progress achieving goals.

- Develop relevant messages

**Year 1** Develop information for website containing the following information. This material is currently presented in a flier currently on the County website.

- What is the Chesapeake Bay TMDL? The Chesapeake Bay TMDL is a pollution diet. The state was required to develop a plan to reduce excess nitrogen, phosphorous, and sediment loads to waters draining to the Chesapeake Bay.
- What is our goal? Hanover County must implement measures to reduce excess nutrients and sediment according to the states plan and must be able to demonstrate reductions of the nutrient loads under the terms of the county's MS4 permit.
  - 5% reduction required first 5 year permit cycle (FY2019)

- 35% reduction (total 40%) second five year permit cycle (FY2024)
- 60% (total 100%) third 5 year permit cycle (FY2029)
- What is being used to address nutrients? Measures will include the installation of biological filters, detention ponds and other best management practices (BMPs) that are designed to remove nutrients and sediment from runoff. The county will also restore the most severely eroded stream corridors to reduce the sediment load and associated nitrogen and phosphorous loads from these areas.
- What can private citizens do? Pick up pet waste, pump out septic tanks if required under the septic pump out program (every 5 years), ensure proper operation and repair of septic systems, wash cars so water does not enter storm drainage systems or surface water, minimize fertilizer use (apply fertilizer based on the results of a soil test), install BMP practices (raingardens, maintain buffers etc. at home), report erosion issues

**Year 2** Update the website for the Chesapeake Bay TMDL to provide a copy of the TMDL Action Plan for the public's information.

**Years 3-5** Provide information on project implementation to address the TMDL including project updates on design and construction of BMPs and stream restoration projects installed. Show the County's progress toward achieving goal.

- Provide for adjustments of audiences and messages to address shortcomings
  - The County website can be updated as needed to provide the most up-to-date information of the County's implementation of the Chesapeake Bay TMDL Action Plan.
- Evaluate prior to new permit coverage for
  - Appropriateness of the issue
  - Appropriateness of the audience
  - Effectiveness

## **2. Pooch Pal/Pet Wastes**

The county will inform residents of impacts to waters from pet wastes. A number of studies of Hanover County waters have found bacteria to be a significant pollutant. Pet waste can be a source of bacteria in our waterways. There are over 10,000 registered dogs in the county. They produce between 3 and 4 tons of pet waste every day. If pet waste is not placed in the trash, it can make its way into local waters.

- Target Audience Size (reaching 20% of Audience annually)
  - Target registered dog owners in Hanover County – Hanover County Code requires that all dog owners in the county obtain a dog license before the dog

is 4 month old. Currently there are over 10,000 registered dog owners in the county.

- Prepare information sheet or flier for dog license renewal.
- Develop relevant messages
  - Pet Waste Messaging - There over 10,000 dog owners in the county. Each dog produces on average  $\frac{3}{4}$  lb of waste per day. That is between 3 and 4 tons of dog waste produced in Hanover every day. That is 1,455 tons per year...if this waste is not picked up and disposed in the trash it can make its way to storm drains and surface water which increases bacterial pollution
  - Some waters in Hanover are impaired as a result of this type of pollution
  - Some neighborhoods in Hanover have placed bag dispensers for residents to use to pick up pet waste to dispose in the trash.
  - BE A POOCH PAL  

Hanover County is looking for Pooch Pals who are willing to maintain a County provided dispenser. Pooch Pal bag dispensers are mounted in high traffic areas. The Pooch Pal volunteer ensures that bags are available in the dispenser and checks the dispenser regularly in order to maintain a count of how many bags are used. Reusing plastic shopping bags for pet waste collection and disposal is recommended. Bag counts are reported to the county. For more information, please contact the Department of Public Works at (804) 365- 6181.
  - Website Poochpal Program and Links to Stop the Drop...  
<http://cvwma.com/cvwma-education/regional-pet-waste-campaign/>
  - Stop the drop/poochpal in website referral on our web site
- Provide for adjustments of audiences and messages to address shortcomings
- Evaluate prior to new permit coverage for
  - Appropriateness of the issue
  - Appropriateness of the audience
  - Effectiveness

### 3. Commercial Site Inspections

Commercial site inspections for 45 commercial shopping center locations

The County has conducted and will continue to conduct commercial site inspections looking for stormwater issues, trash, FOG management and other potential sources of stormwater pollutants. Differences to consider... collect list of facility owners or property management

companies for each facility, approach each business and provide general flier on stormwater pollution with respect to commercial sites by the end of the permit cycle.

- Target Audience Size (reaching 20% of Audience annually)
  - Specifically identified commercial site list inspecting 100% of commercial businesses
  - Conduct site inspections with inspection sheets
  - Targeting 100% of problem sites
  - Develop more comprehensive flier/info sheet to discuss with problem sites
- Develop relevant messages
  - Help prevent stormwater pollution
    - ◇ FOG (fats, oil and grease) Container Management if these wastes are produced
    - ◇ Close and inspect trash bins
    - ◇ Have spill kit available
    - ◇ Use dry methods for cleanup
    - ◇ Protect materials and equipment stored outside from stormwater
    - ◇ Don't wash/clean equipment outdoors
    - ◇ If you must clean outdoors, collect water used to clean outdoors for disposal in the sanitary sewer
    - ◇ Report illegal dumping into storm drains/ditches
  - Messages to be distributed to managers of businesses where inspections are being conducted. Record where messages have been distributed. Confirm commercial centers every 5 years.

*Provide for adjustments of audiences and messages to address shortcomings*

*Evaluate prior to new permit coverage for*

- Appropriateness of the issue
- Appropriateness of the audience
- Effectiveness

**Public Education and Outreach Plan**  
**Supporting Materials**

## ***You can help***

*By picking up your pet waste you are preventing pollution and enhancing the habitat of fish and other organisms that live in the waterways.*



*Don't put leaves and grass in the drainage*

*ways. Leaves and grass can be taken to the trash facility for recycling.*



*Minimize fertilizer use and only apply what is needed and recommended*



*Wash cars where water does not enter storm drainage systems*

Hanover County has been proactive in taking steps to protect the Chesapeake Bay. The county has to continue to meet new required standards that may have impact on the Bay's water quality.

For more information on the Chesapeake Bay program visit these web-sites:

<http://www.chesapeakebay.net>

<http://www.epa.gov>



Hanover County Department of  
Public Works

P.O. Box 470  
Hanover, VA 23069

Phone: 804-365-6181  
Fax: 804-365-6233

E-mail: [publicworks@hanovercounty.gov](mailto:publicworks@hanovercounty.gov)

# **Wading thru Stormwater**



*Hanover County's  
Guide to Stormwater  
and the Chesapeake  
Bay*

# Stormwater and the Chesapeake Bay

Stormwater comes from roadways, rooftops, lawns, driveways and parking lots carrying pollutants to our local streams and rivers and eventually the Chesapeake Bay.

## **The Requirement**

The Chesapeake Bay program has been working to restore the quality of the Bay's water. Despite significant progress, the Bay continues to fall short of meeting water quality standards.

Hanover along with other counties, towns and cities in the state must have programs which reduce the effects of stormwater on the Bay.

The law requires Hanover to reduce pollutants. The EPA, under the authority of the Clean Water Act, mandates localities like Hanover to have a discharge permit because it owns and operates a public system that collects and discharges runoff through ditches and storm sewers. Hanover is required by law through this permit to achieve designated levels of pollutant reductions.

## **The Pollution Diet**

The EPA established a TMDL (Total Maximum Daily Load) or "pollution diet" for the Bay. As a result Virginia and other states were mandated to reduce pollution. Virginia in-turn is mandating that localities implement the plan.

## **Excess Nutrients**

- Low dissolved oxygen levels are primarily the result of excess nutrient pollution. This fuels the growth of algae blooms.
- The algae eventually die and sink to the bottom.
- As the algae decomposes, it uses up oxygen and leaves little for fish, shellfish and other aquatic life.
- These areas of the Bay are known as "dead zones"

## **Excess Sediment**

- When there is too much sediment in the water it becomes cloudy blocking sunlight from reaching underwater plants.
- Excess sediment can bury aquatic habitats and smother bottom-dwelling organisms.

# Reductions

Hanover County must implement measures to reduce excess nutrients and sediment according to the state plan and must be able to demonstrate reduction of the nutrient load under the county's permit.

- Install biological filters, detention ponds, and other Best Management Practices (BMPs)



Tree in Filter Box

- Restore severely eroded stream corridors to reduce the sediment load and associated nitrogen and phosphorus loads from these areas.



Restored Stream Channel

PICKING UP PET WASTE MAY  
BE UNPLEASANT, BUT  
IT'S BETTER THAN  
SWIMMING IN IT



There over 10,000 dog owners in the county. Each dog produces on average  $\frac{3}{4}$  lb of waste per day. That is between 3 and 4 tons of dog waste produced in Hanover every day. That is 1,455 tons per year...if this waste is not picked up and disposed in the trash it can make its way to storm drains and surface water which increases bacterial pollution.

Some waters in Hanover are impaired as a result of this type of pollution.

Some neighborhoods in Hanover have placed bag dispensers for residents to use to pick up pet waste to dispose in the trash.

## PROPER DISPOSAL AT HOME

**Trash It** - Dog waste and kitty litter should be bagged, tied securely and placed in the trash.

**Flush It** - Dog and cat waste can be safely flushed down the toilet (unless you are on a septic system). Don't flush kitty litter, as it can clog drains.

**Bury It** - Dig a hole in your yard at least one foot deep and at least 100 feet away from any well, drainage ditch, or stream.

**Compost It** - Pet waste composting bins are available at many pet supply stores. The bins can be buried in your yard. Pet waste placed in the bin will naturally break down and become absorbed into the soil eliminating any further handling. To use these bins your soil should drain well.

## WHILE WALKING YOUR PET

**Bag It** - Bring plastic bags along on your walks to pick up pet waste. Reusing plastic newspaper or grocery bags works well. Tie the bag closed and deposit it in your trash.

## AN AVOIDABLE IMPACT TO WATER QUALITY

Pet waste and the nutrients associated with it can pollute neighborhood streams. When pet waste is left in the open, it can runoff with stormwater when it rains. The runoff enters stormwater drains and ditches which discharge into creeks, ponds and other water bodies. Disposing of pet waste properly is important to keep our waters clean.

Stormwater pollution prevention is an important part of the community's effort to improve water quality. Protecting our neighborhood streams, and wetlands begins at home. By picking up after your pet, you are preventing

pollution and enhancing the habitat of fish and other organisms that live in the waterways

- 1** Stand Alone Business
- 2** Atlee Square
- 3** Stand Alone Business
- 4** Battlefield Commons
- 5** Bay Court Shopping Center
- 6** The Shoppes at Bell Creek
- 7** Brandy Hill Plaza
- 8** Stand Alone
- 9** Stand Alone
- 10** Stand Alone
- 11** Bowles Farm Plaza
- 12** Creighton Crossing
- 13** Unnamed Shopping Center
- 14** North Cross Center
- 15** Hanover Commons
- 16** Hanover Village
- 17** Hanover Square
- 18** Stand Alone
- 19** Stand Alone
- 20** Stand Alone
- 21** Stand Alone
- 22** Kings Charter Village Center
- 23** Unnamed Shopping Center
- 24** Stand Alone
- 25** Stand Alone
- 26** Stand Alone
- 27** Stand Alone
- 28** Stand Alone
- 29** Montpelier Shoppes -
- 30** Village Green -
- 31** Rutland Commons -
- 32** Stand Alone
- 33** Stand Alone
- 34** Stand Alone
- 35** Stand Alone
- 36** Fastmart Shopping Center
- 37** Stand Alone
- 38** Stand Alone
- 39** Stand Alone
- 40** Stand Alone
- 41** Stand Alone
- 42** Stand Alone
- 43** Stand Alone
- 44** Spring Center
- 45** Stonewall Square

**Arby's** - 360

**Atlee Square** - Route 301, **Brunetti's Restaurant, Dollar General, Atlee Library,**

**Bass Pro** - Lakeridge Parkway

**Battlefield Commons** - 360/Battlefield Green

**Bay Court** - 360/Old Hickory

**Bell Creek** - Pole Green/Bell Creek

**Brandy Hill** - 360/Lee Davis- **Food Lion, China Wok, Subway, Tokyo Hibachi Grill,**

**Burger King** - 360

**Fastmart** - 360 -next to Battlefield Commons (site # 4)

**Burger King** - Rte 301

**Bowles Farm Plaza** - 360 -**Cici's Pizza, Ginger Red Asian Bistro**

**Creighton Crossing** - 360/Creighton - Primo Pizza, Quiznos Subs, China House, Kroger, Subway

**Five Guys** - 360 - at Bowles Farm Plaza (site #11)

**Green Top** - Lakeridge Parkway

**Hanover Commons** - Route 301 - **Food Lion**

**Hanover Village** - 360 - **Tuesday Morning, Anna's Italian Res, Strip Retail, TSC,**

**Hanover Square** - West side Bell Creek Rd - **Best Buy/Target/Home Depot/Cracker Barrel/Strip Retail**

**7 Eleven** - 360 - next to Stonewall Square SS (site #45)

**International House of Pancakes** - 360

**Walmart** - 360

**TGI Fridays** - 360/Creighton - next to Stonewall Square SS (site #45)

**Subway, Mi Jalisco, Lulu's Creamery, China Star,**

**Little Ceasars** - 360 - at Bowles Farm Plaza (site #11)

**Lowe's** - 360

**McDonalds** - 360

**Arby's** - Route 1 @ Sliding Hill

**McDonald s** - Rte 301

**McDonalds** - Sliding Hill - next to Kings Charter (site #22)

**Entire Center**

**Village Green** - Montpelier

**Krogers**

**Montpelier Fast Mart**

**Montpelier Food Center**

**Mexico** - 360

**Outback** - 360/Walmart

**Pasta House/Fas Mart** - Atlee Rd.

**Pizza Hut** - 360

**Popeyes** - Rte 301/Atlee road @ Atlee Square (site #2)

**Ruby Tuesday** - 360/Walmart

**Sheets** - Sliding Hill

**Shoney's** - 360

**Sonic** - Route 1 & Sliding Hill

**Sonic** - 360

**Spring Center** - 360 - **Tropical Cafe**

**Stonewall Square** - 360 across from Creighton Crossing SS



# Shopping Center Inspection Checklist

Site \_\_\_\_\_

Date \_\_\_\_\_

Inspector \_\_\_\_\_

Re-Inspection Date \_\_\_\_\_

| <b>General Site</b>   | <b>Yes</b>               | <b>Notes</b>   |
|---|--------------------------|--|
|   |                          | Action Required <input type="checkbox"/> Action Completed Date: _____ Initials : _____ |
| The site is generally neat and orderly  | <input type="checkbox"/> |  |
| Restaurants have FOG containers   | <input type="checkbox"/> |  |
| No evidence of outdoor cleaning activities  | <input type="checkbox"/> |  |
| <b>Waste Storage Areas/Dumpsters</b>  | <b>Yes</b>               | <b>Notes</b>   |
|   |                          | Action Required <input type="checkbox"/> Action Completed Date: _____ Initials : _____ |
| Dumpsters are covered and closed  | <input type="checkbox"/> |  |
| Dumpsters are in good repair and no leakage is present  | <input type="checkbox"/> |  |
| Trash is contained and no spillage is present   | <input type="checkbox"/> |  |
| <b>FOG (fats, oil and grease containers)</b>  | <b>Yes</b>               | <b>Notes</b>   |
|   |                          | Action Required <input type="checkbox"/> Action Completed Date: _____ Initials : _____ |
| No leaks or spills/or absorbent placed where leaks and spills are present   | <input type="checkbox"/> |  |
| <b>Product Storage Areas</b>  | <b>Yes</b>               | <b>Notes</b>   |
|   |                          | Action Required <input type="checkbox"/> Action Completed Date: _____ Initials : _____ |
| Products with pollutant potential are stored on pads or pallets off of the ground                                     | <input type="checkbox"/> |  |
| Products with pollutant potential are covered or are under cover so they are protected from rainfall                  | <input type="checkbox"/> |  |
| No leakage or spillage is apparent from stored materials  | <input type="checkbox"/> |  |
| <b>Stormwater Inlets</b>  | <b>Yes</b>               | <b>Notes</b>   |
|   |                          | Action Required <input type="checkbox"/> Action Completed Date: _____ Initials : _____ |
| No evidence of liquid or solid waste discharge to inlets  | <input type="checkbox"/> |  |
| No evidence of dumping into inlets (foul or cleaning solution odor, grease or other material on grates, or in inlets) | <input type="checkbox"/> |  |

|           |                           | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b>     |                          |            |                                    |        |        |   |
|-----------|---------------------------|---|--------------------------|------------|------------------------------------|--------|--------|---|
| Site ID # | Shopping Center           | Shopping Center/Site Location   | Inspector                | Date       | Inspection Results                 | Report | Photos | Comments/Follow-up  |
| 1         | Stand Alone Business      | Arby's - 360  | Stu Wilson               | 2/3/2011   | No problems noted                  | no     | no     |   |
| 1         | Stand Alone Business      | Arby's - 360  | John Bourret             | 12/20/2011 | No problems noted                  | no     | no     |   |
| 1         | Stand Alone Business      | Arby's - 360  | John Bourret             | 6/27/2012  | No problems noted                  | no     | no     |   |
| 1         | Stand Alone Business      | Arby's - 360  | John Bourret             | 6/26/2013  | No problems noted                  | no     | no     |   |
| 2         | Atlee Square              | Atlee Square - Route 301, Brunetti's Restaurant, Dollar General, Atlee Library, | Stu Wilson               | 1/10/2011  | No problems noted                  | no     | no     |   |
| 2         | Atlee Square              | Atlee Square - Route 301, Brunetti's Restaurant, Dollar General, Atlee Library, | John Bourret             | 12/6/2011  | Pile of debris behind center.      | no     | no     | It appears that a construction project may be beginning at the center. Need to revisit the location to assure debris is removed after project.                            |
| 2         | Atlee Square              | Atlee Square - Route 301, Brunetti's Restaurant, Dollar General, Atlee Library, | Tina Askew, C. Fremstad  | 3/5/2012   | Pile of debris behind center.      | Yes    | Yes    | Building Debris and oil jugs behind center.   |
| 2         | Atlee Square              | Atlee Square - Route 301, Brunetti's Restaurant, Dollar General, Atlee Library, | John Bourret             | 12/6/2012  | Pile of debris behind center.      | yes    | yes    | I spoke with Anthony Taormina about the noted problems, debris pile, oily stains, outdoor cleaning of equipment. He said they would start cleanup but need about 30 days. |
| 2         | Atlee Square              | Atlee Square - Route 301, Brunetti's Restaurant, Dollar General, Atlee Library, | John Bourret             | 6/28/2013  | Litter behind center               | no     | no     | Much improvement since my last visit. Messy litter around rear of building.   |
| 3         | Stand Alone Business      | Bass Pro - Lakeridge Parkway  | J. Bourret               | 5/17/2011  | No problems noted                  | no     | Yes    | Initial visit, photos taken as baseline.  |
| 3         | Stand Alone Business      | Bass Pro - Lakeridge Parkway  | J. Bourret               | 12/15/2011 | No problems noted                  | no     | no     |   |
| 3         | Stand Alone Business      | Bass Pro - Lakeridge Parkway  | Tina Askew, C. Fremstad  | 3/5/2012   | No problems noted                  | no     | no     |   |
| 3         | Stand Alone Business      | Bass Pro - Lakeridge Parkway  | J. Bourret               | 12/13/2012 | No problems noted                  | no     | no     |   |
| 3         | Stand Alone Business      | Bass Pro - Lakeridge Parkway  | J. Bourret               | 6/24/2013  | No problems noted                  | no     | no     |   |
| 4         | Battlefield Commons       | Battlefield Commons - 360/Battlefield Green                                     | Stu Wilson               | 2/10/2011  | No problems noted                  | no     | no     |   |
| 4         | Battlefield Commons       | Battlefield Commons - 360/Awful Arthurs   | J. Bourret               | 12/5/2011  | No problems noted                  | no     | no     |   |
| 4         | Battlefield Commons       | Battlefield Commons - 360/Awful Arthurs   | Tina Askew               | 3/5/2012   | Problems found behind center       | Yes    | Yes    | Overflowing Trash, Loading dock blocked.  |
| 4         | Battlefield Commons       | Battlefield Commons - 360/Awful Arthurs   | John Bourret             | 12/11/2012 | No problems reported               | no     | no     | Area has been cleaned up since I stopped by and spoke with them in July 2012.   |
| 4         | Battlefield Commons       | Battlefield Commons - 360/Awful Arthurs   | John Bourret             | 6/26/2013  | No Major Problems                  | no     | no     | Area behind building is beginning to get messy however I did not notice any pollution threat.   |
| 5         | Bay Court Shopping Center | Bay Court - 360/Old Hickory   | Stu Wilson               | 2/3/2011   | No problems noted                  | no     | no     |   |
| 5         | Bay Court Shopping Center | Bay Court - 360/Old Hickory   | John Bourret             | 12/23/2011 | No problems noted                  | no     | no     |   |
| 5         | Bay Court Shopping Center | Bay Court - 360/Old Hickory   | John Bourret             | 6/27/2012  | No problems noted                  | no     | no     |   |
| 5         | Bay Court Shopping Center | Bay Court - 360/Old Hickory   | John Bourret             | 6/26/2013  | No problems noted                  | no     | no     |   |
| 6         | The Shoppes at Bell Creek | Bell Creek - Pole Green/Bell Creek  | Stu Wilson               | 1/27/2011  | No problems noted                  | no     | no     |   |
| 6         | The Shoppes at Bell Creek | Bell Creek - Pole Green/Bell Creek  | John Bourret             | 12/23/2011 | No problems noted                  | no     | no     |   |
| 6         | The Shoppes at Bell Creek | Bell Creek - Pole Green/Bell Creek - Farmer Johnson's, Chen's, The Patron,      | Tina Askew, C. Fremstad  | 3/5/2012   | No problems noted                  | yes    | no     |   |
| 6         | The Shoppes at Bell Creek | Sports Page Bar and Grill   | Stu Wilson, John Bourret | 3/3/2011   | Problems found at Sports Bar Grill | yes    | yes    |   |
| 6         | The Shoppes at Bell Creek | Sports Page Bar and Grill   | John Bourret             | 7/29/2011  | No problems found                  | no     | no     | Report discussed with George Lancaster, manager who indicated would correct.  |
| 6         | The Shoppes at Bell Creek | Sports Page Bar and Grill   | John Bourret             | 11/29/2011 | No problems found                  | no     | no     |   |
| 6         | The Shoppes at Bell Creek | Sports Page Bar and Grill   | Tina Askew, C. Fremstad  | 3/5/2012   | cardboard stacked outside contain  | yes    | yes    | follow up visit   |
| 6         | The Shoppes at Bell Creek | Sports Page Bar and Grill   | John Bourret             | 6/21/2012  | No problems noted                  | no     | no     |   |

| <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b> |                           |  |                          |            |                                  |        |        |   |
|---|---------------------------|--|--------------------------|------------|----------------------------------|--------|--------|---|
| Site ID #   | Shopping Center           | Shopping Center/Site Location  | Inspector                | Date       | Inspection Results               | Report | Photos | Comments/Follow-up  |
| 6   | The Shoppes at Bell Creek | <i>Sports Page Bar and Grill</i>   | John Bourret             | 12/21/2012 | Some problems noted              | yes    | yes    | Litter and oily grease spillage evident.  |
| 6   | The Shoppes at Bell Creek | <i>Mimmo's</i>   | Stu Wilson, John Bourret | 3/3/2011   | Problems found at Mimo's Restau  | yes    | yes    |   |
| 6   | The Shoppes at Bell Creek | <i>Mimmo's</i>   | John Bourret             | 7/29/2011  | No problems found                | no     | no     | Report discussed with Sal Filli, manager who agreed would get cleaned up.   |
| 6   | The Shoppes at Bell Creek | <i>Mimmo's</i>   | John Bourret             | 11/29/2011 | No problems found                | no     | no     |   |
| 6   | The Shoppes at Bell Creek | <i>Mimmo's</i>   | John Bourret             | 6/21/2012  | No problems noted                | no     | no     |   |
| 6   | The Shoppes at Bell Creek | <i>Mimmo's</i>   | John Bourret             | 12/21/2012 | Some problems noted              | yes    | yes    | Litter and oily grease spillage evident.  |
| 7   | The Shoppes at Bell Creek | <i>Entire Center</i>   | John Bourret             | 6/19/2013  | No new problems noted            | no     | no     | In general an overall improvement to the center. Nothing major but a messy center and I can't determine which business is the culprit. Need to get property owner involved. |
| 7   | Brandy Hill Plaza         | <i>Brandy Hill - 360/Lee Davis- Food Lion, China Wok, Subway, Tokyo Hibachi Grill,</i>             | Stu Wilson               | 2/2/2011   | No problems noted                | no     | no     |   |
| 7   | Brandy Hill Plaza         | <i>Brandy Hill - 360/Lee Davis- Food Lion, China Wok, Subway, Tokyo Hibachi Grill,</i>             | John Bourret             | 12/20/2011 | No problems noted                | no     | no     |   |
| 7   | Brandy Hill Plaza         | <i>Brandy Hill - 360/Lee Davis- Food Lion, China Wok, Subway, Tokyo Hibachi Grill,</i>             | Tina Askew, C. Fremstad  | 3/5/2012   | No problems noted                | yes    | no     |   |
| 7   | Brandy Hill Plaza         | <i>Brandy Hill - 360/Lee Davis- Food Lion, China Wok, Willies NC BBQ,</i>                          | John Bourret             | 12/18/2012 | No problems noted                | no     | no     |   |
| 7   | Brandy Hill Plaza         | <i>Brandy Hill - 360/Lee Davis- Food Lion, China Wok, Willies NC BBQ,</i>                          | John Bourret             | 5/29/2013  | No problems noted                | no     | no     |   |
| 8   | Stand Alone               | <i>Burger King - 360</i>   | Stu Wilson               | 2/10/2011  | No problems noted                | no     | no     |   |
| 8   | Stand Alone               | <i>Burger King - 360</i>   | Stu Wilson               | 6/1/2011   | No problems noted                | no     | no     |   |
| 8   | Stand Alone               | <i>Burger King - 360</i>   | Tina Askew               | 3/5/2012   | No problems noted                | no     | no     |   |
| 8   | Stand Alone               | <i>Burger King - 360</i>   | John Bourret             | 12/18/2012 | No problems noted                | no     | no     |   |
| 8   | Stand Alone               | <i>Burger King - 360</i>   | John Bourret             | 6/26/2013  | No problems noted                | no     | no     |   |
| 9   | Stand Alone               | <i>Fastmart - 360 -next to Battlefield Commons (site # 4)</i>                                      | J. Bourret               | 12/5/2011  | No problems noted                | no     | no     |   |
| 9   | Stand Alone               | <i>Fastmart - 360 -next to Battlefield Commons (site # 4)</i>                                      | John Bourret             | 6/20/2012  | No problems noted                | no     | no     |   |
| 9   | Stand Alone               | <i>Fastmart - 360 -next to Battlefield Commons (site # 4)</i>                                      | John Bourret             | 12/18/2012 | No problems noted                | no     | no     |   |
| 9   | Stand Alone               | <i>Fastmart - 360 -next to Battlefield Commons (site # 4)</i>                                      | John Bourret             | 6/26/2013  | No problems noted                | no     | no     |   |
| 10  | Stand Alone               | <i>Burger King - Rte 301</i>   | Stu Wilson               | 1/10/2011  | No problems noted                | no     | no     | Left copy of fact sheet with Asst. Mgr.   |
| 10  | Stand Alone               | <i>Burger King - Rte 301</i>   | John Bourret             | 12/23/2011 | No problems noted                | no     | no     |   |
| 10  | Stand Alone               | <i>Burger King - Rte 301</i>   | John Bourret             | 6/27/2012  | No problems noted                | no     | no     |   |
| 10  | Stand Alone               | <i>Burger King - Rte 301</i>   | John Bourret             | 12/18/2012 | No problems noted                | no     | no     |   |
| 10  | Stand Alone               | <i>Burger King - Rte 301</i>   | John Bourret             | 6/21/2013  | No problems noted                | no     | no     |   |
| 11  | Bowles Farm Plaza         | <i>Bowles Farm Plaza - 360 -Cici's Pizza, Ginger Red Asian Bistro</i>                              | Stu Wilson               | 2/3/2011   | No problems noted                | no     | no     |   |
| 11  | Bowles Farm Plaza         | <i>Bowles Farm Plaza - 360 -Cici's Pizza, Ginger Red Asian Bistro</i>                              | John Bourret             | 12/5/2011  | No problems noted                | no     | no     |   |
| 11  | Bowles Farm Plaza         | <i>Bowles Farm Plaza - 360 -Cici's Pizza, Ginger Red Asian Bistro</i>                              | John Bourret             | 6/21/2012  | No problems noted                | no     | no     |   |
| 11  | Bowles Farm Plaza         | <i>Bowles Farm Plaza - 360 -Cici's Pizza, Ginger Red Asian Bistro</i>                              | John Bourret             | 12/18/2012 | No problems noted                | no     | no     |   |
| 11  | Bowles Farm Plaza         | <i>Bowles Farm Plaza - 360 -Cici's Pizza, Ginger Red Asian Bistro</i>                              | John Bourret             | 5/29/2013  | No problems noted                | no     | no     |   |
| 11  | Bowles Farm Plaza         | <i>Bowles Farm Plaza - 360 - Ginger Red Asian Bistro</i>   | John Bourret             | 6/26/2013  | Problems noted                   | yes    | yes    | Oily stains around FOG. Cuong Luu MGR agreed to clean.  |
| 12  | Creighton Crossing        | <i>Creighton Crossing - 360/Creighton - Primo Pizza, Quiznos Subs, China House, Kroger, Subway</i> | Stu Wilson               | 2/2/2011   | No problems noted                | no     | no     |   |
| 12  | Creighton Crossing        | <i>Creighton Crossing - 360/Creighton - Primo Pizza, Quiznos Subs, China House, Kroger, Subway</i> | John Bourret             | 12/5/2011  | No problems noted                | no     | no     |   |
| 12  | Creighton Crossing        | <i>Creighton Crossing - 360/Creighton - Primo Pizza, Quiznos Subs, China House, Kroger, Subway</i> | Tina Askew, C. Fremstad  | 3/5/2012   | Problems at Kroger & Primo Pizza | Yes    | Yes    | Trash behind Krogers, laundry and bread behind Primo Pizza - follow up required.  |

|           |                         | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b>                        |                         |            |                                   |        |        |  |
|-----------|-------------------------|--|-------------------------|------------|-----------------------------------|--------|--------|--|
| Site ID # | Shopping Center         | Shopping Center/Site Location  | Inspector               | Date       | Inspection Results                | Report | Photos | Comments/Follow-up   |
| 12        | Creighton Crossing      | <i>Creighton Crossing</i> - 360/Creighton - Primo Pizza, Quiznos Subs, China House, Kroger, Subway | John Bourret            | 12/18/2012 | No problems noted                 | no     | no     |  |
| 12        | Creighton Crossing      | <i>Creighton Crossing</i> - 360/Creighton - China House  | Tina Askew, C. Fremstad | 3/5/2012   | No Problems noted                 | yes    | no     |  |
| 12        | Creighton Crossing      | <i>Creighton Crossing</i> - 360/Creighton - China House  | John Bourret            | 12/18/2012 | No Problems noted                 | no     | no     |  |
| 12        | Creighton Crossing      | <i>Creighton Crossing</i> - 360/Creighton Crossing - entire center                                 | John Bourret            | 6/26/2013  | No Problems noted                 | no     | no     |  |
| 13        | Unnamed Shopping Center | <i>Five Guys</i> - 360 - at Bowles Farm Plaza (site #11)   | Stu Wilson              | 2/3/2011   | No problems noted                 | no     | no     |  |
| 13        | Unnamed Shopping Center | <i>Five Guys</i> - 360 - at Bowles Farm Plaza (site #11)   | John Bourret            | 12/5/2011  | No problems noted                 | no     | no     |  |
| 13        | Unnamed Shopping Center | <i>Five Guys</i> - 360 - at Bowles Farm Plaza (site #11)   | John Bourret            | 6/27/2012  | No problems noted                 | no     | no     |  |
| 13        | Unnamed Shopping Center | <i>Five Guys</i> - 360 - at Bowles Farm Plaza (site #11)   | John Bourret            | 12/18/2012 | No problems noted                 | no     | no     |  |
| 13        | Unnamed Shopping Center | <i>Five Guys</i> - 360 - at Bowles Farm Plaza (site #11)   | John Bourret            | 6/26/2013  | No problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <i>Gander Mountain</i> - Lakeridge Parkway   | John Bourret            | 6/29/2011  | No Problems noted                 | no     | yes    |  |
| 14        | North Cross Center      | <i>Gander Mountain</i> - Lakeridge Parkway   | John Bourret            | 12/6/2011  | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <i>Gander Mountain</i> - Lakeridge Parkway   | Tina Askew, C. Fremstad | 3/5/2012   | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <del><i>Gander Mountain</i></del> <i>Greentop</i> - Lakeridge Parkway                              | John Bourret            | 12/11/2012 | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <del><i>Gander Mountain</i></del> <i>Greentop</i> - Lakeridge Parkway                              | John Bourret            | 6/25/2013  | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <i>Home Depot</i> - Lakeridge Parkway  | John Bourret            | 6/29/2011  | No problems noted                 | no     | yes    |  |
| 14        | North Cross Center      | <i>Home Depot</i> - Lakeridge Parkway  | John Bourret            | 12/6/2011  | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <i>Home Depot</i> - Lakeridge Parkway  | Tina Askew, C. Fremstad | 3/5/2012   | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <i>Home Depot</i> - Lakeridge Parkway  | John Bourret            | 12/11/2012 | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <i>CiCi's Pizza, Jade Chinese, Jersey Mikes Subs,</i>  | John Bourret            | 12/6/2011  | No Problems noted                 | no     | no     |  |
| 14        | North Cross Center      | <i>CiCi's Pizza, Jade Chinese, Jersey Mikes Subs,</i>  | Tina Askew, C. Fremstad | 3/5/2012   | Problems noted @ CiCi's           | Yes    | Yes    | Oil spillage around Biodiesel Drum. Follow up required.  |
| 14        | North Cross Center      | <i>CiCi's Pizza, Jade Chinese, Jersey Mikes Subs,</i>  | John Bourret            | 12/11/2012 | Potential Problem noted           | no     | no     | It appears that outdoor cleaning is going on at Jade. Mike Dieter is aware and has spoken to Jade. I will continue to check business to make sure the practice has ceased.                                     |
| 14        | North Cross Center      | <i>CiCi's Pizza, Jade Chinese, Jersey Mikes Subs,</i>  | John Bourret            | 6/26/2013  | No new problems noted             | no     | no     | I don't see signs of active outdoor cleaning. There is still signs of past cleaning and a small amount of litter present. It changes from day to day so it appears that they are trying to keep it maintained. |
| 15        | Hanover Commons         | <i>Hanover Commons</i> - Route 301 - <i>Food Lion</i>  | Stu Wilson              | 1/10/2011  | No problems except for Food Lion  | yes    | yes    | Report discussed with Angela Marcuson (assistant mgr) who indicated would get items corrected. Left fact sheet.  |
| 15        | Hanover Commons         | <i>Hanover Commons</i> - Route 301 - <i>Food Lion</i>  | Stu Wilson              | 3/3/2011   | Reinspect Food Lion - problems st | yes    | yes    | Report discussed with Kelly Barrows store manager who immediately got workers to effect cleanup of problem areas.  |
| 15        | Hanover Commons         | <i>Hanover Commons</i> - Route 301 - <i>Food Lion</i>  | John Bourret            | 8/24/2011  | Reinspect Food Lion - problems st | yes    | no     |  |
| 15        | Hanover Commons         | <i>Hanover Commons</i> - Route 301 - <i>Food Lion</i>  | Tina Askew, C. Fremstad | 3/5/2012   | No Problems noted                 | yes    | no     |  |
| 15        | Hanover Commons         | <i>Hanover Commons</i> - Route 301 - <i>Food Lion</i>  | John Bourret            | 12/6/2012  | No Problems noted                 | no     | no     |  |
| 15        | Hanover Commons         | <i>Hanover Commons</i> - Route 301 - <i>Giovanni's</i>   | Tina Askew              | 3/5/2012   | Messy Cardboard                   | yes    | yes    | Messy cardboard thrown outside business.   |

|           |                 | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b>                   |                         |            |                                   |        |        |  |
|-----------|-----------------|---|-------------------------|------------|-----------------------------------|--------|--------|--|
| Site ID # | Shopping Center | Shopping Center/Site Location   | Inspector               | Date       | Inspection Results                | Report | Photos | Comments/Follow-up   |
| 15        | Hanover Commons | <i>Hanover Commons</i> - Route 301 - <i>Don Pedro 2</i>                                       | John Bourret            | 12/6/2012  | Evidence of cooking oil spill     | yes    | yes    | Evidence of past recent cooking oil spill which reached storm inlet. Spoke with manager David Martinez who contacted FOG vendor to cleanup.  |
| 15        | Hanover Commons | <i>Hanover Commons</i> - Route 301 - <i>Don Pedro 2</i>                                       | John Bourret            | 6/26/2013  | no problems noted                 | no     | no     |  |
| 16        | Hanover Village | <i>Hanover Village</i> - 360 - <i>Tuesday Morning, Anna's Italian Res, Strip Retail, TSC,</i> | Stu Wilson              | 2/10/2011  | No problems noted                 | no     | no     |  |
| 16        | Hanover Village | <i>Hanover Village</i> - 360 - <i>Tuesday Morning, Anna's Italian Res, Strip Retail, TSC,</i> | John Bourret            | 12/5/2011  | No problems noted                 | no     | no     |  |
| 16        | Hanover Village | <i>Hanover Village</i> - 360 - <i>Tuesday Morning, Anna's Italian Res, Strip Retail, TSC,</i> | Tina Askew              | 3/5/2012   | Lots of garbage and trash behind  | yes    | yes    | Followup Required - Anna's Restaurant  |
| 16        | Hanover Village | <i>Hanover Village</i> - 360 - <i>Tuesday Morning, Anna's Italian Res, Strip Retail, TSC,</i> | John Bourret            | 12/18/2012 | Problems noted                    | yes    | yes    | Litter and greasy spillage noted behind Anna's. I spoke with Frank Volo-owner. He said he would clean it up within the week.   |
| 16        | Hanover Village | <i>Hanover Village</i> - 360 - <i>Tuesday Morning, Anna's Italian Res, Strip Retail, TSC,</i> | John Bourret            | 6/26/2013  | no problems noted                 | no     | no     | No problems noted-much improvement   |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side - <i>BJs, Strip Retail, Buffalo Wild Wings</i>              | Stu Wilson              | 1/25/2011  | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side - <i>BJs, Strip Retail, Buffalo Wild Wings</i>              | John Bourret            | 6/21/2013  | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Dollar Tree</i>                        | Stu Wilson              | 1/25/2011  | No problems noted except for Kol  | yes    | yes    | Copy of report and fact sheet left and discussed with Natasha Carr who indicated would correct.  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Dollar Tree</i>                        | John Bourret            | 12/6/2011  | No problems noted except for Kol  | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Dollar Tree</i>                        | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | Stu Wilson              | 1/25/2011  |                                   | yes    | yes    | Copy of report and fact sheet left and discussed with Mgr. Tom Black who indicated would correct.  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | Stu Wilson              | 2/18/2011  | Revisit site. No problems noted e | yes    | yes    | Copy of report discussed with Mgr. Tom Black who said he would correct problems. Indicated site no better and possibly worse than previous inspection and some immediate attention warranted. He indicated his understanding and willingness to correct. |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | Stu Wilson              | 6/1/2011   | Revisit. Still some problems.     | yes    | yes    | Discussed with Katherine Meng and left report. Mr. Black Not on site.  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | John Bourret            | 12/6/2011  | Revisit - same problems as before | yes    | no     | Same problems as before. I did not talk to store management since this is the 4th visit and no action appears to have been taken. Recommend copy of report and letter sent via mail.   |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | Tina Askew, C. Fremstad | 3/5/2012   | No problems noted                 | yes    | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | John Bourret            | 5/29/2013  | minor problem noted               | no     | no     | Minor litter around dumpster area, seems to have accumulated from days operation. Will inspect again when in the area. They seem to have improved overall.   |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Kohls</i>                              | John Bourret            | 6/21/2013  | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Applebee's</i>                         | John Bourret            | 5/29/2013  | Problems Noted                    | yes    | yes    | Evidence of outdoor cleaning leading to SW inlet. I spoke with Kitchen Manager Ryan Booth. Will meet with General Manager and correct the problem.   |

|           |                 | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b>                                     |                         |            |                                   |        |        |  |
|-----------|-----------------|---|-------------------------|------------|-----------------------------------|--------|--------|--|
| Site ID # | Shopping Center | Shopping Center/Site Location   | Inspector               | Date       | Inspection Results                | Report | Photos | Comments/Follow-up   |
| 17        | Hanover Square  | <i>Hanover Square</i> - East side Bell Creek Road - <i>Applebee's</i>   | John Bourret            | 6/21/2013  | No new problems noted             | no     | no     | No signs of new outdoor cleaning activity. Past stains remain on pavement.   |
| 17        | Hanover Square  | <i>Hanover Square</i> - West side Bell Creek Road - <i>Best Buy</i>   | Tina Askew, C. Fremstad | 3/6/2012   | No problems noted                 | yes    | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - West side Bell Creek Road - <i>Best Buy</i>   | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - West side Bell Creek Rd - <i>Best Buy/Target/Home Depot/Cracker Barrel/Strip Retail</i> | Stu Wilson              | 1/25/2011  | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - West side Bell Creek Rd - <i>Best Buy/Target/Home Depot/Cracker Barrel/Strip Retail</i> | John Bourret            | 12/6/2011  | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - West side Bell Creek Rd - <i>Best Buy/Target/Home Depot/Cracker Barrel/Strip Retail</i> | Tina Askew, C. Fremstad | 3/5/2012   | No problems noted                 | yes    | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - West side Bell Creek Rd - <i>Best Buy/Target/Home Depot/Cracker Barrel/Strip Retail</i> | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |  |
| 17        | Hanover Square  | <i>Hanover Square</i> - West side Bell Creek Rd - <i>Best Buy/Target/Home Depot/Cracker Barrel/Strip Retail</i> | John Bourret            | 5/29/2013  | No problems noted                 | no     | no     |  |
| 18        | Stand Alone     | <i>7 Eleven</i> - 360 - next to Stonewall Square SS (site #45)  | John Bourret            | 12/5/2011  | No problems noted                 | no     | no     |  |
| 18        | Stand Alone     | <i>7 Eleven</i> - 360 - next to Stonewall Square SS (site #45)  | Tina Askew              | 3/5/2012   | No problems noted                 | no     | no     |  |
| 18        | Stand Alone     | <i>7 Eleven</i> - 360 - next to Stonewall Square SS (site #45)  | John Bourret            | 12/11/2012 | No Problems noted                 | no     | no     |  |
| 18        | Stand Alone     | <i>7 Eleven</i> - 360 - next to Stonewall Square SS (site #45)  | John Bourret            | 6/26/2013  | No Problems noted                 | no     | no     |  |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | Stu Wilson              | 2/3/2011   | Minor clean up needed. Trash out  | yes    | no     | Discussed need for clean up with mgr - Phil Snyder - showed him specific problems - left fact sheet.                               |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | Stu Wilson              | 3/23/2011  | Follow-up visit and large amounts | yes    | yes    | Discussed report and corrective actions with Phil Snyder who said would take of.   |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | Stu Wilson              | 6/1/2011   | Revisit - still problems          | yes    | yes    | Discussed with Donovan Manning. Mr. Snyder no longer on site.  |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | John Bourret            | 12/20/2011 | No problems noted                 | no     | no     |  |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | John Bourret            | 6/21/2012  | No problems noted                 | no     | no     |  |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | John Bourret            | 12/10/2012 | No Problems noted                 | no     | no     |  |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | John Bourret            | 12/10/2012 | No Problems noted                 | no     | no     |  |
| 19        | Stand Alone     | <i>International House of Pancakes</i> - 360  | John Bourret            | 6/26/2013  | No Problems noted                 | no     | no     |  |
| 20        | Stand Alone     | <i>Walmart</i> - 360  | Stu Wilson              | 1/25/2011  | No problems noted                 | no     | no     | Very clean site.   |
| 20        | Stand Alone     | <i>Walmart</i> - 360  | Stu Wilson              | 3/23/2011  | No problems noted                 | no     | no     | Waste handling areas are pristine clean. Left fact sheet with Asst. Mgr. Buck Painter and complimented him on the cleanliness etc. |
| 20        | Stand Alone     | <i>Walmart</i> - 360  | John Bourret            | 12/20/2011 | No problems noted                 | no     | no     |  |
| 20        | Stand Alone     | <i>Walmart</i> - 360  | Tina Askew, C. Fremstad | 3/5/2012   | No problems noted                 | yes    | no     |  |
| 20        | Stand Alone     | <i>Walmart</i> - 360  | John Bourret            | 12/20/2012 | No problems noted                 | no     | no     |  |
| 20        | Stand Alone     | <i>Walmart</i> - 360  | John Bourret            | 6/21/2013  | No problems noted                 | no     | no     |  |
| 21        | Stand Alone     | <i>TGI Fridays</i> - 360/Creighton - next to Stonewall Square SS (site #45)                                     | Stu Wilson              | 2/3/2011   | No problems noted                 | no     | no     |  |
| 21        | Stand Alone     | <i>TGI Fridays</i> - 360/Creighton - next to Stonewall Square SS (site #45)                                     | John Bourret            | 12/5/2011  | No problems noted                 | no     | no     |  |
| 21        | Stand Alone     | <i>TGI Fridays</i> - 360/Creighton - next to Stonewall Square SS (site #45)                                     | Tina Askew, C. Fremstad | 3/5/2012   | Some bagged trash but inside lock | yes    | no     | Follow up  |
| 21        | Stand Alone     | <i>TGI Fridays</i> - 360/Creighton - next to Stonewall Square SS (site #45)                                     | John Bourret            | 6/20/2012  | No problems noted                 | no     | no     |  |
| 21        | Stand Alone     | <i>TGI Fridays</i> - 360/Creighton - next to Stonewall Square SS (site #45)                                     | John Bourret            | 12/11/2012 | No problems noted                 | no     | no     |  |

|           |                              | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b> |                         |            |  |        |        |   |
|-----------|------------------------------|---|-------------------------|------------|--|--------|--------|---|
| Site ID # | Shopping Center              | Shopping Center/Site Location   | Inspector               | Date       | Inspection Results                     | Report | Photos | Comments/Follow-up  |
| 21        | Stand Alone                  | <i>TGI Fridays</i> - 360/Creighton - next to Stonewall Square SS (site #45) | John Bourret            | 6/26/2013  | Problems noted                         | yes    | yes    | Pavement shows signs of outdoor cleaning and leachate coming from dumpster area to SW inlet. Spoke with Natsha Hunter Bar MRG-they will clean pavement and cease outdoor cleaning of equipment. |
| 22        | Kings Charter Village Center | <i>Food Lion</i>  | John Bourret            | 6/16/2011  | Initial Inspection - no problems noted | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Food Lion</i>  | John Bourret            | 12/9/2011  | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Food Lion</i>  | John Bourret            | 6/15/2012  | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Food Lion</i>  | John Bourret            | 12/19/2012 | Pails stored near grease container     | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Food Lion</i>  | John Bourret            | 6/7/2013   | No problems noted                      | no     | no     | Inspected during rain event - no problems noted.  |
| 22        | Kings Charter Village Center | <i>Mi Jalisco</i>   | John Bourret            | 6/16/2011  | Initial Inspection                     | yes    | yes    |   |
| 22        | Kings Charter Village Center | <i>Mi Jalisco</i>   | John Bourret            | 12/9/2011  | No problems noted                      |        |        |   |
| 22        | Kings Charter Village Center | <i>Mi Jalisco</i>   | Tina Askew, C. Fremstad | 3/5/2012   | Litter around solid waste dumpster     | yes    | yes    | Follow up visit required  |
| 22        | Kings Charter Village Center | <i>Mi Jalisco</i>   | John Bourret            | 6/7/2013   | No problems noted                      | no     | no     | Inspected during rain event - no problems noted.  |
| 22        | Kings Charter Village Center | <i>Subway</i> #20084  | John Bourret            | 6/16/2011  | Initial Inspection                     | yes    | yes    |   |
| 22        | Kings Charter Village Center | <i>Subway</i> #20084  | John Bourret            | 12/9/2011  | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Subway</i> #20084  | John Bourret            | 6/15/2012  | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Subway, Mi Jalisco, Lulu's Creamery, China Star,</i>                     | John Bourret            | 12/19/2012 | Problems noted                         | yes    | no     | Greasy spillage and staining behind Mi Jalisco, Subway, Lulu's Creamery, Dumpster has litter spillage as well.  |
| 22        | Kings Charter Village Center | <i>Subway, Mi Jalisco, Lulu's Creamery, China Star,</i>                     | John Bourret            | 6/7/2013   | No problems noted                      | no     | no     | Inspected during rain event - no problems noted.  |
| 22        | Kings Charter Village Center | <i>China Star</i>   | John Bourret            | 6/16/2011  | No problems noted                      | no     | yes    |   |
| 22        | Kings Charter Village Center | <i>China Star</i>   | John Bourret            | 12/9/2011  | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>China Star</i>   | Tina Askew, C. Fremstad | 3/5/2012   | Black stain on pavement                | yes    | yes    |   |
| 22        | Kings Charter Village Center | <i>Curves</i>   | Tina Askew, C. Fremstad | 3/5/2012   | Broken Fence                           | yes    | yes    | Not a pollution issue-  |
| 22        | Kings Charter Village Center | <i>Curves</i>   | John Bourret            | 12/19/2012 | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Marios Italian Restaurant</i>  | John Bourret            | 6/16/2011  | No problems noted                      | no     | yes    |   |
| 22        | Kings Charter Village Center | <i>Marios Italian Restaurant</i>  | John Bourret            | 12/9/2011  | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Marios Italian Restaurant</i>  | John Bourret            | 12/19/2012 | No problems noted                      | no     | no     |   |
| 22        | Kings Charter Village Center | <i>Marios Italian Restaurant</i>  | John Bourret            | 6/7/2013   | No problems noted                      | no     | no     |   |
| 23        | Unnamed Shopping Center      | <i>Little Ceasars</i> - 360 - at Bowles Farm Plaza (site #11)               | Stu Wilson              | 2/3/2011   | No problems noted                      | no     | no     |   |
| 23        | Unnamed Shopping Center      | <i>Little Ceasars</i> - 360 - at Bowles Farm Plaza (site #11)               | John Bourret            | 12/5/2011  | No problems noted                      | no     | no     |   |
| 23        | Unnamed Shopping Center      | <i>Little Ceasars</i> - 360 - at Bowles Farm Plaza (site #11)               | John Bourret            | 6/21/2012  | No problems noted                      | no     | no     |   |
| 23        | Unnamed Shopping Center      | <i>Little Ceasars</i> - 360 - at Bowles Farm Plaza (site #11)               | John Bourret            | 12/20/2012 | No problems noted                      | no     | no     |   |
| 23        | Unnamed Shopping Center      | <i>Little Ceasars</i> - 360 - at Bowles Farm Plaza (site #11)               | John Bourret            | 6/26/2013  | No problems noted                      | no     | no     |   |
| 24        | Stand Alone                  | <i>Lowe's</i> - 360   | Stu Wilson              | 2/3/2011   | Minor clean-up needed - report filed   | yes    | no     | Discussed report and fact sheet with manager Dee Dee Leake and requested clean up.  |
| 24        | Stand Alone                  | <i>Lowe's</i> - 360   | John Bourret            | 12/5/2011  | No problems noted                      | no     | no     |   |
| 24        | Stand Alone                  | <i>Lowe's</i> - 360   | Tina Askew, C. Fremstad | 3/5/2012   | Some trash - no potential to discharge | yes    | no     | minor problem noted - follow up   |

|           |                      | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b> |                         |            |                                |        |        |  |
|-----------|----------------------|---|-------------------------|------------|--------------------------------|--------|--------|--|
| Site ID # | Shopping Center      | Shopping Center/Site Location   | Inspector               | Date       | Inspection Results             | Report | Photos | Comments/Follow-up   |
| 24        | Stand Alone          | Lowe's - 360  | John Bourret            | 6/21/2012  | No problems noted              | no     | no     |  |
| 24        | Stand Alone          | Lowe's - 360  | John Bourret            | 12/18/2012 | No problems noted              | no     | no     |  |
| 24        | Stand Alone          | Lowe's - 360  | John Bourret            | 5/29/2013  | No problems noted              | no     | no     |  |
| 25        | Stand Alone          | McDonalds - 360   | Stu Wilson              | 2/10/2011  | No problems noted              | no     | no     |  |
| 25        | Stand Alone          | McDonalds - 360   | Stu Wilson              | 6/1/2011   | No problems noted              | no     | no     |  |
| 25        | Stand Alone          | McDonalds - 360   | Tina Askew              | 3/5/2012   | No problems noted              | no     | no     |  |
| 25        | Stand Alone          | McDonalds - 360   | John Bourret            | 12/18/2012 | No problems noted              | no     | no     |  |
| 25        | Stand Alone          | McDonalds - 360   | John Bourret            | 5/29/2013  | No problems noted              | no     | no     |  |
| 26        | Stand Alone          | Arby's - Route 1 @ Sliding Hill   | John Bourret            | 6/29/2011  | No problems noted              | no     | no     |  |
| 26        | Stand Alone          | Arby's - Route 1 @ Sliding Hill   | John Bourret            | 12/23/2011 | No problems noted              | no     | no     |  |
| 26        | Stand Alone          | Arby's - Route 1 @ Sliding Hill   | John Bourret            | 6/21/2012  | No problems noted              | no     | no     |  |
| 26        | Stand Alone          | Arby's - Route 1 @ Sliding Hill   | John Bourret            | 12/11/2012 | No problems noted              | no     | no     |  |
| 27        | Stand Alone          | Arby's - Route 1 @ Sliding Hill   | John Bourret            | 6/25/2013  | No problems noted              | no     | no     |  |
| 27        | Stand Alone          | McDonald s - Rte 301  | Stu Wilson              | 1/10/2011  | No problems noted              | no     | no     | Left copy of fact sheet with Asst. Mgr.  |
| 27        | Stand Alone          | McDonald s - Rte 301  | John Bourret            | 6/27/2012  | No problems noted              | no     | no     |  |
| 27        | Stand Alone          | McDonalds - Rte 301   | John Bourret            | 12/11/2012 | No problems noted              | no     | no     |  |
| 27        | Stand Alone          | McDonalds - Rte 301   | John Bourret            | 6/21/2013  | No problems noted              | no     | no     |  |
| 28        | Stand Alone          | McDonalds - Sliding Hill - next to Kings Charter (site #22)                 | John Bourret            | 6/15/2011  | No problems noted              | no     | yes    |  |
| 28        | Stand Alone          | McDonalds - Sliding Hill - next to Kings Charter (site #22)                 | John Bourret            | 12/16/2011 | No problems noted              | no     | no     |  |
| 28        | Stand Alone          | McDonalds - Sliding Hill - next to Kings Charter (site #22)                 | Tina Askew, C. Fremstad | 3/5/2012   | No problems noted              | yes    | no     |  |
| 28        | Stand Alone          | McDonalds - Sliding Hill - next to Kings Charter (site #22)                 | John Bourret            | 12/18/2012 | No problems noted              | yes    | no     |  |
| 28        | Stand Alone          | McDonalds - Sliding Hill - next to Kings Charter (site #22)                 | John Bourret            | 6/14/2013  | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Food Lion   | John Bourret            | 3/9/2011   | No problems noted - see commen | no     | yes    | Initial visit, photos taken as baseline. Some grease and leachate stains on the pavement with evidence of movement towards drain in the past. No present threat noted. |
| 29        | Montpelier Shoppes - | Food Lion   | John Bourret            | 5/5/2011   | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Food Lion   | John Bourret            | 12/9/2011  | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Food Lion   | John Bourret            | 6/15/2012  | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Bamboo Chinese  | John Bourret            | 3/9/2011   | No problems noted              | no     | yes    |  |
| 29        | Montpelier Shoppes - | Bamboo Chinese  | John Bourret            | 5/5/2011   | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Bamboo Chinese  | John Bourret            | 12/9/2011  | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Bamboo Chinese  | John Bourret            | 6/15/2012  | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Subway #41708   | John Bourret            | 3/9/2011   | No problems noted              | no     | yes    |  |
| 29        | Montpelier Shoppes - | Subway #41708   | John Bourret            | 5/5/2011   | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Subway #41708   | John Bourret            | 12/9/2011  | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Subway #41708   | John Bourret            | 6/15/2012  | No problems noted              | no     | no     |  |
| 29        | Montpelier Shoppes - | Domino's  | John Bourret            | 3/9/2011   | No problems noted              | no     | yes    |  |
| 29        | Montpelier Shoppes - | Domino's  | John Bourret            | 5/5/2011   | No problems noted              | no     | no     | Follow up visit.   |

|           |                      | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b> |                         |            |                                    |            |            |  |  |
|-----------|----------------------|---|-------------------------|------------|------------------------------------|------------|------------|--|--|
| Site ID # | Shopping Center      | Shopping Center/Site Location   | Inspector               | Date       | Inspection Results                 | Report     | Photos     | Comments/Follow-up   |  |
| 29        | Montpelier Shoppes - | <i>Domino's</i>   | John Bourret            | 12/9/2011  | No problems noted                  | no         | no         |  |  |
| 29        | Montpelier Shoppes - | <i>Domino's</i>   | John Bourret            | 6/15/2012  | No problems noted                  | no         | no         |  |  |
| 29        | Montpelier Shoppes - | <i>Entire Center</i>  | John Bourret            | 11/27/2012 | No problems found                  | no         | no         |  |  |
| 29        | Montpelier Shoppes - | <i>Entire Center</i>  | John Bourret            | 6/7/2013   | No problems noted                  | no         | no         | Inspected during rain event-no problems noted.   |  |
| 30        | Village Green -      | <i>Village Green</i> - Montpelier   | John Bourret            | 3/9/2011   | No problems noted.                 | no         | <u>yes</u> |  |  |
| 30        | Village Green -      | <i>Village Green</i> - Montpelier   | John Bourret            | 5/5/2011   | No problems noted                  | no         | no         | Follow up visit.   |  |
| 30        | Village Green -      | <i>Village Green</i> - Montpelier   | John Bourret            | 12/23/2011 | No problems noted                  | no         | no         |  |  |
| 30        | Village Green -      | <i>Village Green</i> - Montpelier   | John Bourret            | 6/15/2012  | No problems noted                  | no         | no         |  |  |
| 30        | Village Green -      | <i>Village Green</i> - Montpelier   | John Bourret            | 12/21/2012 | Some problems noted                | no         | no         | Messy behind the center - not in MS4 area. No potential to enter SW inlet.   |  |
| 31        | Village Green -      | <i>Village Green</i> - Montpelier   | John Bourret            | 5/29/2013  | Some problems noted                | no         | no         | Messy behind the center - not in MS4 area. No potential to enter SW inlet.   |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | Stu Wilson              | 1/10/2011  | No problems except for Kroger - r  | <u>yes</u> | yes        | Report and pictures discussed with Shannon Reed (assist. mgr) who indicated problems would be corrected. She made copy of inspection form. |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | John Bourret            | 5/18/2011  | Pet food spillage at loading dock- | <u>Yes</u> | <u>Yes</u> | I met with Mr. Mason Rudd Asst Store Mgr. He was extremely cooperative and said he would have the problems addresses immediately.          |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | John Bourret            | 7/25/2011  | No problems noted                  | no         | no         |  |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | John Bourret            | 12/6/2011  | No problems noted                  | no         | no         |  |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | Tina Askew, C. Fremstad | 3/5/2012   | Litter around solid waste dumpste  | Yes        | Yes        | Follow up required- litter and wood pile.  |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | John Bourret            | 6/16/2012  |                                    | no         | no         |  |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | John Bourret            | 12/6/2012  | Trash and oily stains              | yes        | yes        | I spoke with Jeff Chiott about noted minor problems. Thet will take immediate action to cleanup.   |  |
| 31        | Rutland Commons -    | <i>Krogers</i>  | John Bourret            | 6/28/2013  | no problems noted                  | no         | no         |  |  |
| 31        | Rutland Commons -    | <i>Marty's Grill</i>  | John Bourret            | 5/18/2011  | Litter around solid waste dumpste  | <u>Yes</u> | <u>Yes</u> | I met with Mr. Michael Cohan - his response was "That's not me, that's the landlords responsibility but I'll take care of it"              |  |
| 31        | Rutland Commons -    | <i>Marty's Grill</i>  | John Bourret            | 7/25/2011  | No problems noted                  | no         | no         |  |  |
| 31        | Rutland Commons -    | <i>Marty's Grill</i>  | John Bourret            | 12/6/2011  | No problems noted                  | no         | no         |  |  |
| 31        | Rutland Commons -    | <i>Marty's Grill</i>  | Tina Askew, C. Fremstad | 3/5/2012   | Messy Litter around dumpster       | Yes        | Yes        | Minor litter around dumpster - follow up required.   |  |
| 31        | Rutland Commons -    | <i>Marty's Grill</i>  | John Bourret            | 6/16/2012  | No problems noted                  | no         | no         |  |  |
| 31        | Rutland Commons -    | <i>Marty's Grill</i>  | John Bourret            | 12/6/2012  | Litter, oily grease stains         | yes        | yes        | I spoke with Michael Cohan - they will cleanup area and pressure wash oily grease areas.   |  |
| 32        | Stand Alone          | <i>Montpelier Fast Mart</i>   | John Bourret            | 3/9/2011   | No problems noted                  | no         | <u>yes</u> |  |  |
| 32        | Stand Alone          | <i>Montpelier Fast Mart</i>   | John Bourret            | 12/23/2011 | No problems noted                  | no         | no         |  |  |
| 32        | Stand Alone          | <i>Montpelier Fast Mart</i>   | John Bourret            | 6/27/2012  | No problems noted                  | no         | no         |  |  |
| 32        | Stand Alone          | <i>Montpelier Fast Mart</i>   | John Bourret            | 11/27/2012 | No problems noted                  | no         | no         |  |  |
| 32        | Stand Alone          | <i>Montpelier Fast Mart</i>   | John Bourret            | 5/24/2013  | No problems noted                  | no         | no         |  |  |

|           |                          | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b> |                         |            |                                    |        |        |   |  |
|-----------|--------------------------|---|-------------------------|------------|------------------------------------|--------|--------|---|--|
| Site ID # | Shopping Center          | Shopping Center/Site Location   | Inspector               | Date       | Inspection Results                 | Report | Photos | Comments/Follow-up  |  |
| 33        | Stand Alone              | Montpelier Food Center  | John Bourret            | 3/9/2011   | No problems noted                  | no     | yes    |   |  |
| 33        | Stand Alone              | Montpelier Food Center  | John Bourret            | 12/6/2011  | No problems noted                  | no     | no     |   |  |
| 33        | Stand Alone              | Montpelier Food Center  | John Bourret            | 11/27/2012 | No problems noted                  | no     | no     |   |  |
| 33        | Stand Alone              | Montpelier Food Center  | John Bourret            | 5/24/2013  | No problems noted                  | no     | no     |   |  |
| 34        | Stand Alone              | Mexico - 360  | Stu Wilson              | 2/3/2011   | No problems noted                  | no     | no     |   |  |
| 34        | Stand Alone              | Mexico - 360  | John Bourret            | 12/20/2011 | No problems noted                  | no     | no     |   |  |
| 34        | Stand Alone              | Mexico - 360  | Tina Askew, C. Fremstad | 3/5/2012   | messy back area                    | yes    | yes    | signs of outdoor cleaning - follow up required  |  |
| 34        | Stand Alone              | Mexico - 360  | John Bourret            | 12/20/2012 | messy back area                    | yes    | yes    | Continued signs of outdoor cleaning. Litter and trash around back and new house at rear of property.  |  |
| 34        | Stand Alone              | Mexico - 360  | John Bourret            | 6/21/2013  | No new problems noted              | no     | no     | There was an employee actively cleaning up litter when I was there today. Pavement stains still there from past outdoor cleaning. Not certain if they are still cleaning equip outdoors-will check more frequently. |  |
| 35        | Stand Alone              | Outback - 360/Walmart   | Stu Wilson              | 2/3/2011   | No problems noted                  | no     | no     |   |  |
| 35        | Stand Alone              | Outback - 360/Walmart   | John Bourret            | 12/20/2011 | No problems noted                  | no     | no     |   |  |
| 35        | Stand Alone              | Outback - 360/Walmart   | Tina Askew, C. Fremstad | 3/5/2012   | furniture and laundry outside nea  | yes    | yes    | Follow up required - furniture and laundry near stormdrain.   |  |
| 35        | Stand Alone              | Outback - 360/Walmart   | John Bourret            | 12/21/2012 | No problems noted                  | no     | no     |   |  |
| 35        | Stand Alone              | Outback - 360/Walmart   | John Bourret            | 6/21/2013  | No problems noted                  | no     | no     |   |  |
| 36        | Fastmart Shopping Center | Pasta House/Fas Mart - Atlee Rd.  | Stu Wilson              | 2/10/2011  | No problems noted                  | no     | no     |   |  |
| 36        | Fastmart Shopping Center | Pasta House/Fas Mart - Atlee Rd.  | John Bourret            | 6/29/2012  | No problems noted                  | no     | no     |   |  |
| 36        | Fastmart Shopping Center | Pasta House/Fas Mart - Atlee Rd.  | John Bourret            | 12/21/2012 | No problems noted                  | no     | no     |   |  |
| 36        | Fastmart Shopping Center | Pasta House/Fas Mart - Atlee Rd.  | John Bourret            | 6/26/2013  | No problems noted                  | no     | no     |   |  |
| 37        | Stand Alone              | Pizza Hut - 360   | Stu Wilson              | 2/3/2011   | Excess trash outside dumpsters - \ | yes    | yes    | Discussed problem and need for better maintenance with mgr. Tony Nightingale and left report and fact sheet.  |  |
| 37        | Stand Alone              | Pizza Hut - 360   | Stu Wilson              | 6/1/2011   | Site improved -no problems notec   | no     | no     |   |  |
| 37        | Stand Alone              | Pizza Hut - 360   | John Bourret            | 12/20/2011 | No problems noted                  | no     | no     |   |  |
| 37        | Stand Alone              | Pizza Hut - 360   | Tina Askew, C. Fremstad | 3/5/2012   | No problems noted                  | yes    | no     |   |  |
| 37        | Stand Alone              | Pizza Hut - 360   | John Bourret            | 12/21/2012 | No problems noted                  | no     | no     |   |  |
| 37        | Stand Alone              | Pizza Hut - 360   | John Bourret            | 6/21/2013  | No problems noted                  | no     | no     |   |  |
| 38        | Stand Alone              | Popeyes - Rte 301/Atlee road @ Atlee Square (site #2)                       | Stu Wilson              | 1/10/2011  | No problems noted                  | no     | no     | Left copy of fact sheet with Asst. Mgr.   |  |
| 38        | Stand Alone              | Popeyes - Rte 301/Atlee road @ Atlee Square (site #2)                       | John Bourret            | 7/25/2011  | No problems noted                  | no     | no     |   |  |
| 38        | Stand Alone              | Popeyes - Rte 301/Atlee road @ Atlee Square (site #2)                       | John Bourret            | 12/6/2011  | No problems noted                  | no     | no     |   |  |
| 38        | Stand Alone              | Popeyes - Rte 301/Atlee road @ Atlee Square (site #2)                       | John Bourret            | 6/21/2012  | No problems noted                  | no     | no     |   |  |
| 38        | Stand Alone              | Popeyes - Rte 301/Atlee road @ Atlee Square (site #2)                       | John Bourret            | 12/10/2012 | No problems noted                  | no     | no     |   |  |
| 38        | Stand Alone              | Popeyes - Rte 301/Atlee road @ Atlee Square (site #2)                       | John Bourret            | 6/28/2013  | No problems noted                  | no     | no     |   |  |
| 39        | Stand Alone              | Ruby Tuesday - 360/Walmart  | Stu Wilson              | 2/3/2011   | No problems noted                  | no     | no     |   |  |
| 39        | Stand Alone              | Ruby Tuesday - 360/Walmart  | Stu Wilson              | 6/1/2011   | No problems noted                  | no     | no     |   |  |

|           |                  | <b>Retail and Commercial Site Solid and Liquid Waste Inspection History</b>                               |                         |            |                                   |        |        |   |
|-----------|------------------|---|-------------------------|------------|-----------------------------------|--------|--------|---|
| Site ID # | Shopping Center  | Shopping Center/Site Location   | Inspector               | Date       | Inspection Results                | Report | Photos | Comments/Follow-up  |
| 39        | Stand Alone      | <i>Ruby Tuesday</i> - 360/Walmart   | John Bourret            | 12/20/2011 | No problems noted                 | no     | no     |   |
| 39        | Stand Alone      | <i>Ruby Tuesday</i> - 360/Walmart   | Tina Askew, C. Fremstad | 3/5/2012   | Possible leakage and trash        | yes    | yes    | Follow up required - litter and possible FOG leakage                                      |
| 39        | Stand Alone      | <i>Ruby Tuesday</i> - 360/Walmart   | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |   |
| 39        | Stand Alone      | <i>Ruby Tuesday</i> - 360/Walmart   | John Bourret            | 6/21/2013  | No problems noted                 | no     | no     |   |
| 40        | Stand Alone      | <i>Sheets</i> - Sliding Hill  | John Bourret            | 6/15/2011  | No problems noted                 | no     | yes    |   |
| 40        | Stand Alone      | <i>Sheets</i> - Sliding Hill  | John Bourret            | 12/20/2011 | No problems noted                 | no     | no     |   |
| 40        | Stand Alone      | <i>Sheets</i> - Sliding Hill  | Tina Askew, C. Fremstad | 3/5/2012   | No problems noted                 | yes    | no     |   |
| 40        | Stand Alone      | <i>Sheets</i> - Sliding Hill  | John Bourret            | 12/11/2012 | No problems noted                 | no     | no     |   |
| 41        | Stand Alone      | <i>Sheets</i> - Sliding Hill  | John Bourret            | 6/25/2013  | No problems noted                 | no     | no     |   |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | Stu Wilson              | 2/3/2011   | No problems noted                 | no     | yes    | Report and problems discussed with Enrique Leon who indicated will take care of problems. |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | Stu Wilson              | 2/24/2011  | Improvements needed - accumula    | yes    | yes    | Report and needed corrective action discussed with Enrique Romo                           |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | Stu Wilson              | 3/23/2011  | Follow-up - problems still remain | yes    | yes    | Discussed positive report with Enrique Romo and thanked for improvements on site          |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | Stu Wilson              | 6/1/2011   | Follow-up - site much improved -  | yes    | no     |   |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | John Bourret            | 12/20/2011 | No problems noted                 | no     | no     |   |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | John Bourret            | 6/29/2012  | No problems noted                 | no     | no     |   |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |   |
| 41        | Stand Alone      | <i>Shoney's</i> - 360   | John Bourret            | 6/21/2013  | No problems noted                 | no     | no     |   |
| 42        | Stand Alone      | <i>Sonic</i> - Route 1 & Sliding Hill   | John Bourret            | 6/29/2011  | No problems noted                 | no     | no     |   |
| 42        | Stand Alone      | <i>Sonic</i> - Route 1 & Sliding Hill   | John Bourret            | 12/23/2011 | No problems noted                 | no     | no     |   |
| 42        | Stand Alone      | <i>Sonic</i> - Route 1 & Sliding Hill   | John Bourret            | 6/29/2012  | No problems noted                 | no     | no     |   |
| 42        | Stand Alone      | <i>Sonic</i> - Route 1 & Sliding Hill   | John Bourret            | 12/11/2012 | No problems noted                 | no     | no     |   |
| 42        | Stand Alone      | <i>Sonic</i> - Route 1 & Sliding Hill   | John Bourret            | 6/25/2013  | No problems noted                 | no     | no     |   |
| 43        | Stand Alone      | <i>Sonic</i> - 360  | Stu Wilson              | 2/3/2011   | No problems noted                 | no     | no     |   |
| 43        | Stand Alone      | <i>Sonic</i> - 360  | John Bourret            | 12/5/2011  | No problems noted                 | no     | no     |   |
| 43        | Stand Alone      | <i>Sonic</i> - 360  | John Bourret            | 6/29/2012  | No problems noted                 | no     | no     |   |
| 43        | Stand Alone      | <i>Sonic</i> - 360  | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |   |
| 43        | Stand Alone      | <i>Sonic</i> - 360  | John Bourret            | 6/26/2013  | No problems noted                 | no     | no     |   |
| 44        | Spring Center    | <i>Spring Center</i> - 360 - <i>Tropical Cafe</i>   | Stu Wilson              | 2/3/2011   | No problems noted                 | no     | no     |   |
| 44        | Spring Center    | <i>Spring Center</i> - 360 - <i>Tropical Cafe</i>   | John Bourret            | 12/20/2011 | No problems noted                 | no     | no     |   |
| 44        | Spring Center    | <i>Spring Center</i> - 360 - <i>Tropical Cafe</i>   | John Bourret            | 6/29/2012  | No problems noted                 | no     | no     |   |
| 44        | Spring Center    | <i>Spring Center</i> - 360 - <i>Tropical Cafe</i>   | John Bourret            | 12/21/2012 | No problems noted                 | no     | no     |   |
| 44        | Spring Center    | <i>Spring Center</i> - 360 - <i>Tropical Cafe</i>   | John Bourret            | 6/21/2013  | No problems noted                 | no     | no     |   |
| 45        | Stonewall Square | <i>Stonewall Square</i> - 360 across from Creighton Crossing SS - <i>Chanello's Pizza, Firehouse Subs</i> | Stu Wilson              | 2/3/2011   | No problems noted                 | no     | no     | Very clean site.  |
| 45        | Stonewall Square | <i>Stonewall Square</i> - 360 across from Creighton Crossing SS - <i>Chanello's Pizza, Firehouse Subs</i> | John Bourret            | 12/5/2011  | No problems noted                 | no     | no     |   |
| 45        | Stonewall Square | <i>Stonewall Square</i> - 360 across from Creighton Crossing SS - <i>Chanello's Pizza, Firehouse Subs</i> | John Bourret            | 6/29/2012  | No problems noted                 | no     | no     |   |
| 45        | Stonewall Square | <i>Stonewall Square</i> - 360 across from Creighton Crossing SS - <i>Chanello's Pizza, Firehouse Subs</i> | John Bourret            | 12/11/2012 | No problems noted                 | no     | no     |   |



## **Hanover County Department of Public Works**

### **Retail/Commercial Site Solid/Liquid Waste/ Materials Handling**

#### **General Site Inspection Procedures**

The Hanover County Public Works Department has begun a program of inspecting solid and liquid waste and materials handling areas located at retail and commercial business establishments. The proper disposal of solid and liquid wastes prevents unsightly litter pollution which can create a nuisance and adversely affect public health and safety, potential discharges of contaminants to the County's storm water drainage system, odor problems and vermin and insect problems. Sections 18-2 and 18-3 of the County Code prohibits littering and the maintenance of offensive or unsanitary accumulations on property and Section 10-74 of the County Code prohibits discharges to the County storm sewer system. Both of these County code sections (attached) provide a regulatory framework and authority for conducting these inspections.

Any location with outside containers for collection of solid and liquid wastes or areas used to store products materials or equipment can be potentially inspected for environmental concerns. Of particular interest are locations within the MS4 service area or Suburban Service Area (see map attached with suburban service areas) for Hanover County and within this area, locations generating large quantities of solid and liquid waste or storing products, materials, or equipment outdoors such as grocery stores, restaurants, department and other retail operations, doctor's offices, industrial and manufacturing facilities, automobile service facilities and similar type establishments. Initial priority will be placed upon inspection of shopping centers, restaurants and primarily retail facilities within the Suburban Service Area. An inventory of sites within this area will be developed over time and as inspections of facilities are completed. Inspections of these sites should follow these general procedures:

- Inspections should be random except for scheduled follow-up visits where pre-arranged dates/times have been determined with the site owners/managers. Suggested frequency for inspections would be quarterly dependent on site and problem history frequency.
- Inspections should generally address the items noted for inspection under the solid and liquid waste inspections outlined below.
- The attached inspection report form should be used to document the inspection and results.
- Photographs should be taken of suspected problem areas needing correction.
- For solid waste concerns needing correction where there is no probability of discharge to the storm drain system, the manager of the facility should be contacted in person and the items needing correction discussed and cooperation and commitment to correction agreed upon. If corrective action is not willingly agreed upon or a manager not available to speak with in person, a follow-up letter should be sent to the site manager/owner outlining the concerns and need for corrective action. A sample form letter is attached.

- For solid and liquid waste concerns with evidence of discharge or possible discharge to the storm drainage system these sites should be referred to the MS4 program manager (Mike Dieter) for appropriate follow-up action.
- The inspection history database should be updated to document the inspection and results.

### **Solid Waste Container Inspection Procedures**

There are several types of solid waste containers that may be present to collect primarily solid and some associated liquid wastes at commercial sites. The two main types include a stand alone collection container (dumpster) without compaction capability and those that incorporate a compaction unit along with a collection unit. The compaction type units are of two main types: those which have a stationary stand alone compactor unit usually attached to a roll off collection container by ratchet hooks and a self contained compactor/container unit where the entire unit (compactor and container) is in one unit and is usually a roll off type unit to be removed and emptied off site. The compacting units are often but not always loaded from within the commercial establishment into the compactor component negating the possibility for spillage of materials during loading outside the commercial facility. The stand alone containers without compaction are filled by loading from the top or possibly front outside the commercial establishment. Both types of units may be designed to be emptied on site by front end loaders with hooks or be a roll off to be taken off site to be emptied and returned to site.

### **Items to Inspect for Stand Alone Waste Containers (Dumpsters) without Compaction Units**

- The container should be closed and have a closable sealable lid to prevent water infiltration, accidental spillage and material blowing out of the container.
- Check for the presence of loose trash and other dry wastes stored outside the container which needs to be cleaned up to prevent litter and potential pollution problems. Also look for the presence of liquid wastes and chemical products which may be stored outside the container in small containers. Such storage of liquid wastes may increase the risk of spillage and mishandling/vandalism of these materials.
- Check for leakage/spillage around the container and visible signs of liquid discharge. Note the presence of absorbent material that may have been spread to clean up spills. This absorbent material should be cleaned up as well.
- Some storage container sites may have a dry drain sump for the collection of spilled materials from the container area designed to keep liquid discharges within the container area. Check to ensure these drain sumps are properly maintained and cleaned out to prevent unwanted discharge.
- Check for the location of nearest stormwater drainage structure or drainage way that could receive liquid discharge from the container. If possible the containers should be

placed away from drainage structures or be within an area where any discharges can be contained and cleaned up before it reaches the drainage structure or drainage way.

- Many containers will have a removable drain plug near the bottom of the container which could be removed to facilitate drainage of liquids within the container. Check for the existence of plugs particularly if a liquid discharge is present and ensure that the plugs are in place as they are often removed and/or damaged allowing drainage from the container.
- Check the integrity of the container for corrosion and other damage that indicates that it may need replacement to prevent future liquid discharge and lack of containment of dry wastes.
- Note the presence of insect or vermin problems related to the container or discharge.

### **Items to Inspect for Solid Waste Containers with Compaction Units**

- All inspection items noted above for stand alone units without compaction units should also be inspected for units for compaction units where applicable. In addition compacting units have additional items which should be inspected for potential problems including:
- For stationary compactors with an attached collection unit, check the connection area between the two units to ensure an adequate fit to prevent the discharge of dry and liquid wastes between the compactor and the collection unit as the material is moved from the compactor to the collection unit.
- Compacting units will have a hydraulic pump system for compaction which for stand alone compactors primarily is normally located outside the compaction unit. This unit and hoses should be checked for hydraulic fluid leaks and potential discharge. Ideally the entire hydraulic unit should be covered to keep precipitation from the unit and prevent damage to the hydraulic unit and possible discharge. For self contained compactor/collection units the hydraulic system may be internally located within the container and is less likely to be a cause of environmental problems.
- Collection units receiving compacted material will be emptied by opening of one end of the unit via a door with a sealable gasket. This gasket seal can fail and cause liquid to seep through the door sides during the collection period and this area should be checked to see if any leakage is occurring in this area.

### **Liquid Waste - Fats, Oil and Grease (FOG) - Containers Inspection Procedures**

These are separate containers used specifically for recyclable fats, oils and greases which will primarily be located at restaurant and grocery store locations having food cooking wastes. They

may be a simple drum such as a 55 gallon drum or a special mini-dumpster type container such as utilized by Valley Proteins. Items to inspect and check for include:

- The container should be closed and have a closable sealable lid to prevent water infiltration and accidental spillage.
- Check for leakage/spillage around the container and visible signs of discharge. Note the presence of absorbent material that may have been spread to clean up spills. This absorbent material should be cleaned up as well.
- Check for location of nearest stormwater drainage structure or drainage way that could receive discharge from the container. If possible the containers should be placed away from drainage structures or be within an area where any discharges can be contained and cleaned up before it reaches the drainage structure or drainage way.
- The container should be marked to identify it is to be used for inedible food products.
- Check the integrity of the container for corrosion and other damage that indicates that it may need replacement to prevent future discharge.
- Note the presence of insect or vermin problems related to the container or discharge.

### **Materials Storage Areas**

Materials offered for sale or used in the business could potentially be stored outside. These items are typically bagged items or equipment. Items stored outside should be in good condition and not show signs or leaks or spills. Equipment (rental equipment for example) should be stored in a clean condition.

- Materials and equipment should be stored inside where possible. When it is not possible to store items inside, they should be stored in a covered area with sufficient overhanging cover to prevent rainfall from normally coming in contact with the stored material or be stored under weather resistant covers or tarps, on a solid surface, such as asphalt or concrete, or a raised surface, such as a pallet. Cover tarps should be weather resistant and secured.
- Outside storage areas should be located in areas not normally subject to concentrated run-off such as ditches, swales, or other stormwater conveyance structures, not normally subject to flooding, and should not be located in areas where run-off from a roof, roof downspout, or other overhead structure can come in contact with the stored material.

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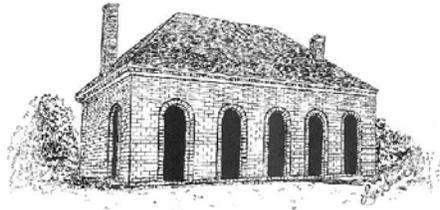
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**HANOVER COUNTY**

ESTABLISHED IN 1720

**DEPARTMENT OF PUBLIC WORKS**

**J. MICHAEL FLAGG, P.E., DIRECTOR**  
**W. R. HARDMAN, III, 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

Dear Hanover County Business:

Re: Proper Management of Waste Materials

In accordance with state and federally mandated stormwater requirements, Hanover County recently completed inspections of businesses in your area. In some cases we found that waste materials should be managed better. We are requesting your help to ensure that wastes from your business are properly managed.

To protect the environment, Hanover County requires the storage of waste materials in tightly covered leak proof containers. Waste containers must be kept covered and secured until they are removed from the premises for disposal to prevent the dispersal of litter. Allowing wastes to enter a public storm sewer, creeks, or streams is a violation of county code, state regulations, and/or the Clean Water Act.

If you are currently managing your waste properly, there is no need for any additional action. If you are not managing your waste properly, we request that you take appropriate actions to implement proper waste disposal practices at your business. Please do your part to protect Hanover County's environment. Hanover County's Department of Public Works can be contacted at 365-6181 if you have any questions concerning this matter.

Sincerely,  
Hanover County Department of Public Works



**Do secure wastes in covered containers**



**Do call for waste collection in a timely manner**



**Don't allow waste to enter storm drains**



**Don't overfill containers so they overflow**

# **Illicit Discharge Procedures**

## **Appendix A2**

## **Field Screening Outfalls for Illicit Discharge (Minimum Control Measure 3)**

### Prioritized schedule of field screening activities

Field screening activities in Years 1 and 2 have historically been in areas of the county that have:

- Older infrastructure
- Significant numbers of septic systems
- Potential connections to impaired waters

These areas include outfalls in the following JL19 and JL20 6<sup>th</sup> order HUC designations. Older neighborhoods within these areas will be the focus of inspections earlier in the permit cycle.

### Number of Screening Activities

Currently there are 915 regulated stormwater outfalls in the County. 671 of these outfalls are owned by Hanover County. Under the provisions of the MS4 regulation, a minimum of 50 outfall inspections are required each year. The County intends to inspect a minimum of 50 outfalls per year over the course of the five year permit cycle. If an average of 20% of the stormwater outfalls are inspected annually (avg. 183 outfall inspections/year), all outfalls can be inspected during the five year permit cycle. Inspections will be conducted based on available staff. In addition to screening for illicit discharges and dry weather flow, outfall inspections are used to screen outfalls for repair and maintenance.

### Methods to collect General Information

**Weather Data** - Prior to screening outfalls, the screener will ensure that 3 days have elapsed since the last rain event. This information can be obtained from the AccuWeather.com site for Ashland, Virginia. A tabular listing of weather data can be seen by clicking on the "View" tab on the monthly weather calendar. Print the rainfall data and include it with the outfall screening data when it is turned in at the end of the day. Screening may be allowed in some cases if less than 3 days have elapsed at the discretion of the Director of the Hanover County Department of Public Works.

**Outfall Data** - Data regarding each outfall will be obtained when construction is completed and prior to inspection of the outfall. Items to be tracked will include the following:

| <b>General Data</b> | <b>Information Source</b>  |
|---------------------|--|
| Facility ID         | Facility ID based on numbering by HUC code   |
| Drainage Area ID    | Drainage Area ID based on numbering by HUC code  |
| Inspection year     | Year of the permit cycle when the facility will be inspected (1-5)   |
| HUC Code            | Virginia 6 <sup>th</sup> order HUC code where the outfall is located   |
| Tributary           | Tributary that the outfall is located in from appropriate local maps   |
| Subdivision Name    | From Subdivision plan if applicable or "None"  |
| Street Location     | Address of outfall   |
| Relative Location   | Location of outfall relative to the address above i.e. (behind, right, left, across street etc.) this will assist field personnel in locating the outfall. |
| Location Type       | Residential, commercial, school, as applicable based on the drainage area to the outfall   |
| Latitude            | From GIS mapping system or field GPS information   |
| Longitude           | From GIS mapping system or field GPS information   |
| Drainage Area       | From design plans  |
| Outfall Owner       | Based on location on design plans, in right of way (VDOT), in County easement (County), outside of ROW or easement (Private)                               |
| Drainage Type       | Pipe/Ditch   |
| Ditch Material      | Grass, Concrete, Asphalt from existing condition or design plan  |
| Ditch Size          | From existing condition or design plan   |
| Pipe Material       | Concrete, CMP, HDPE from existing condition or design plan   |
| Pipe Size           | From existing condition or design plan   |

Outfall Inspection Data – Outfall inspection data will be obtained at the first outfall inspection and will consist of the observations below. In addition, if flow is present, obtain readings for the temperature, pH, specific conductivity, and the total dissolved salt from a sample obtained at the outfall.

| <b>Inspection Data</b> | <b>Information Source</b>   |
|------------------------|---|
| <b>Stains</b>          | Discoloration of concrete or surrounding riprap at the outfall due to minerals, such as iron, or others substances that permanently discolored surrounding material |
| <b>Growths</b>         | Bacteria or fungi that is growing around the outfall area   |
| <b>Petroleum</b>       | Presence of oil in the water or an oily residue on concrete, riprap or vegetation around the outfall  |
| <b>Debris</b>          | Brush, leaves, fallen trees that have covered, obscured, or blocked the outfall itself or the water channel   |
| <b>Deposits</b>        | Any substance or item that has collected at the outfall site that is not classified as sediment, floatables, or debris  |
| <b>Floatables</b>      | Floatable trash that has collected at the outfall   |
| <b>Sediment</b>        | Sediment that has been deposited in front of or around the outfall opening  |
| <b>Turbid</b>          | Opaque, murky water   |
| <b>Sheens</b>          | Slightly reflective sheen present on top of water – not due to petroleum  |
| <b>Odors</b>           | Abnormal odors of the water itself, not the surrounding area  |
| <b>Vegetation</b>      | Dense vegetation that partially or fully obscures or blocks the outfall   |
| <b>Damage</b>          | Damage of the outfall due to large amounts of water, and/or design failure  |
| <b>Color</b>           | Related to the characteristic of stains – represents abnormal coloring of the water or of the area surrounding the outfall  |

Flow Estimate – If there is flow at the outfall during the inspection, estimate the flow. A garden hose size flow is between 2 and 3 gallons/minute. Flow in a pipe or channel can be obtained by obtaining the depth of flow and calculating the flow in the ditch or pipe using Manning's formula for open channel flow.

Illicit Discharge Identification - Outfalls with flow that exhibits stains, growths, petroleum, deposits, turbidity, sheens, odor, color or with a pH less than 5 or greater than 6.5, or with a specific conductivity > 200 or with and TDS > 100 may be a potential illicit discharge.

#### Illicit Discharge Follow-up

Any illicit discharge that is suspected of being sanitary sewer will immediately be coordinated with the Public Utilities Department for expeditious resolution. Otherwise, illicit discharge will be tracked back thru the storm sewer system by observing flow thru the system upstream of the outfall to determine if the source of the discharge can be located. Additional samples can be taken following the first observed discharge to determine if the discharge is continuous or intermittent. If within six months of the beginning of the investigation neither the source nor the same non-stormwater discharge has been identified, the incident will be documented as follows at a minimum:

- the date(s) that the illicit discharge was observed and reported;
- the results of the investigation;
- any follow-up of the investigation;
- resolution of the investigation; and
- the date that the investigation was closed.

If the observed discharge is intermittent, a minimum of three separate investigations will be made in an attempt to observe the discharge when it was flowing. If these attempts are unsuccessful the above information will be documented.

If a source of the discharge is located, measures will be taken to stop the discharge consistent with applicable ordinances and legal authorities.

#### Legal Authorities for Illicit Discharge

Section 10-74 Discharges to storm sewer system - Identifies authorized discharges to the storm sewer system and prohibits illicit discharge to the storm sewer system.

Section 10-75 Inspection and monitoring - Allows for inspection for unauthorized discharges and allows for the director to specify pollution prevention plans where illicit discharge exists.

Section 10-76 Enforcement of article; penalty - Provides for penalties and enforcement of illicit discharge measures.

Typically storm sewer is within a County easement which allows for access and inspection. Make sure to obtain appropriate authorization to access property if access is obtained from an area other than in an easement.

If the source of an illicit discharge is identified, follow-up actions can be taken according to procedures found in Illicit Discharge Tracking and Response, July 1, 2014.

**Illicit Discharge Tracking and Response  
Supporting Materials**

## **Illicit Discharge Tracking and Response**

July 1, 2014

### Background

Dumping materials into storm drains and surface water bodies is not allowed under Virginia Law. In Hanover County, unauthorized dumping or the accidental spilling of materials must be reported to the Hanover County Department of Public Works (DPW) and the contamination must be cleaned up. This document provides Hanover County's procedures for responding to observations and reports of illicit discharges.

### Definitions

According to 9 VAC 25-870 VSMP Program Regulations

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a separate VPDES or state permit (other than the state permit for discharges from the municipal separate storm sewer), discharges resulting from firefighting activities, and discharges identified by and in compliance with 9VAC25-870-400 D 2 c (3).

For the purposes of this document the discharge of materials including dumping, spilling or the cleaning of equipment (e.g. concrete trucks, hydro-seeders, asphalt equipment) or the dumping of left over products such as paint, solvents, cleaners and other materials will be reported in the following manner.

### Reporting an Illicit Discharge Incident

To report an illicit discharge that constitutes an emergency situation or that occurs after regular business hours, or on weekends or holidays, contact emergency response officials by dialing 911. During regular business hours, non-emergency reports of illicit discharge can be made to the DPW. Upon receiving a report of an illicit discharge or spill:

- 1) Obtain the following information:
  - Location/street address of the incident
  - When the incident occurred including time and date
  - Material involved/description of incident
  - Water body or storm drain involved
  - Company involved description of individuals or vehicles involved
  
  - Person reporting the incident - Name and contact information
- 2) Contact the Hanover Fire Marshall and DEQ
  - For Emergency situations - (911) – Dangerous chemical or petroleum spills
  - Non-emergency situations - Hanover County Fire Marshall at 365-4850 - Spills or other discharge
  
  - General questions for the Hanover County Fire Marshall's Office Fire Marshall on duty

- Also report spills or unauthorized discharges to the Virginia Department of Environmental Quality (DEQ) at 804-527-5042 (pollution response for DEQ Piedmont Regional Office)

3) Site Visit

For non emergency situations, make arrangements to visit the site with the fire marshal and the pollution response representative for the DEQ Piedmont Regional Office

4) Illicit discharge incident tracking

Log the incident and the associated pictures on a standard drainage complaint form and submit the form to Mike Dieter for follow-up and tracking.

Include any recommended actions and summarize the actions undertaken by emergency responders such as the Fire Marshall's office on the drainage complaint form.

Follow-up Actions

1) Legal Action

Criminal violations of Hanover County Ordinances or State law for discharge to surface waters are the purview of the Hanover County Fire Marshall's office.

Violations of Hanover County Ordinances prohibiting illicit discharge are the responsibility of the DPW and the Office of the Hanover County Attorney.

2) Hanover County agencies such as the Sheriff's Department, and Fire or Emergency Response agencies that receive reports of illicit discharge or that respond to emergency situations that involve spills or other illicit discharge must report these incidents to the DPW. Hanover County's Municipal Separate Storm Sewer System (MS4) permit requires Hanover County to track and report illicit discharge incidents in an annual report to the Virginia Department of Environmental Quality (DEQ).

Aside from tracking and reporting illicit discharge incidents, Hanover County is required to document the County's response to each incident including the actions taken by the County including cleanup and legal action associated with the illicit discharge. The DPW and Hanover County Emergency response agencies will share information regarding illicit discharge incidents in order to meet the requirements of the County's permit with DEQ.

Other County agencies can report illicit discharge to DPW at 365-6181.

### Illicit Discharge Complaint Tracking Form

| Complaint Reported By                                   | Issues  | Subdivision                     | Address   | Engineer | Date Received | Date Inspected | Date Resolved | Priority | Enforcement Action  | Type of Resolution   | IN MSA ? |
|---|---|---------------------------------|---|----------|---------------|----------------|---------------|----------|---|--|----------|
| Ladd Grindstaff - Deputy Firemarshal                    | Contractor washing exhaust venting and discharging to ground.   | None                            | 10130 Lakeridge Parkway, Suite 109                | MJD      | 9/4/2009      | 9/5/2009       | 9/5/2009      | Low      | Warning   | Firemarshal and I both explained to the shop owner and the contractor that discharge to stormsewer was not permitted.  | Yes      |
| Chris Slomp - Battalion Chief, Deputy Firemarshal       | Fuel spill by delivery contractor at Patrick Henry HS   | None                            | 12449 Patrick Henry Rd. Ashland, VA 23005         | MJD      | 5/12/2009     | 5/12/2009      | 5/12/2009     | High     | Person responsible for the spill was identified and charged with a Class 1 misdemeanor under the Virginia Fire Prevention Code Section 2703.3.1 | A cleanup contractor is now onsite 05/12/2009 and will be managing cleanup for James River Petroleum this evening. Fire is pursuing the investigation and will charge as appropriate...the petroleum company was responsible for the spill. The spill has been reported, Mr. Cash and Mr. Ashby with schools were on-site. | No       |
| Citizen   | Historic automobile fuel tanks in river   | None                            | Adjacent to Pop's Pick and Pay                    | MJD      | N/A           | N/A            | 7/2/2009      | Low      | Tanks Removed   | Worked with DEQ to ensure cleanup of tanks. DEQ has indicated that the tanks have been removed.  | No       |
| <b>FY 2010</b>  |   |                                 |   |          |               |                |               |          |   |  |          |
| Jonathan Wingfield - Hanover County Deputy Fire Marshal | Grease and water discharge due to cleaning fryers outdoors  | None                            | KFC, 7091 Mechanicsville Turnpike                 | MJD      | 9/12/2009     | N/A            | 12/16/2009    | High     | Required submission and implementation of SWPPP plan consistent with provisions in County ordinance.  | SWPPP plan submitted, inspections submitted for one year to demonstrate proper management of grease wastes.  | Yes      |
| Mike Flagg - Director of Public Works                   | Discharge of water mixed with stone fines   | Airpark                         | Natural Marble and Granite, 10978 Richardson Road | MJD      | 9/3/2009      | 9/28/2009      | 10/22/2009    | Low      | None - Assist with proper management of water   | Site visit 10/22/2009 with Matt Ellinghaus with public utilities. Business has installed water recycling equipment to filter fines from water so it can be reused in cutting equipment.  | No       |
| Mike Dieter   | Homeowner Dumping grass clipping in drainageway   | Milestone                       | John Wheatley Indianfield Drive                   | MJD      | 12/3/2009     | 12/3/2009      | 12/4/2009     | Low      | None - Sent letter regarding proper waste mgmt.   | Sent letter regarding proper waste management  | Yes      |
| Marcus Allen VDH/Andy Marchetti Building Inspections    | Discharge of Sewage   | Patrick Henry Heights           | 8477 Wheeling Road                                | MJD      | 2/3/2010      | 2/3/2010       | 2/3/2010      | Low      | None - Health department and building inspections to resolve issue of overflowing grinder pump with home owner                                  | Building inspections to issue stop work order and work with homeowner to resolve building code violations.   | No       |
| Anonymous   | Pipe in ditch may be discharging sewage   | Forest Lake Hills               | 11042 Palmwood Circle                             | MJD      | 3/23/2010     | 3/25/2010      | 3/31/2010     | LOW      | None  | Marcus Allen confirmed that a Groundwater Interceptor was installed at the home and is part of the permitted septic system.  | Yes      |
| Ann Bateman   | Oil spill at intersection of Robin Way and Brandy Creek Drive   |                                 | 7389 Brandy Creek Drive                           | MJD      | 4/15/2010     | N/A            | 4/15/2010     | Low      | None  | Referred to fire Marshall for Clean up. Spoke with Chief Slomp who indicated that they would place absorbent, sweep up and confer with VDOT on the spill which occurred in the public ROW. Chief Slomp indicated that the spill was small and there was no discharge to stormwater infrastructure or surface waters.       | Yes      |
| Vickey Bowers   | Grass clippings in ditch  | Berkley Forest                  | 9228 Wyattwood Road                               | MJD      | 4/14/2010     | 4/20/2010      | 4/20/2010     | Low      | Left fliers   | Left fliers for all properties adjacent to the ditch   | Yes      |
| Michael Sheppard  | Concrete in ditch   | airpark                         | 10966 Leadbetter Road                             | MJD      | 5/14/2010     | 5/19/2010      |               | Low      | Spoke with the business and let them know that discharge to the storm sewer system was not allowed.   | Asked the owner to stop the discharge. They indicated that they would be installing a filter system. I asked them to call when it was installed.   | No       |
| <b>FY2011</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Jonathan Wingfield                                      | Discharge of car washing entering storm sewer   | None                            | 7006 Mechanicsville Turnpike                      | MJD      | 10/6/2010     | 9/20/2010      | 10/12/2010    | low      | None  | Letter sent notifying that car washing was against County ordinances. Will followup as needed with the store manager.  | Yes      |
| Brian Sulser  | Neighbor Blowing Leaves into Lake   | Walnut Grove                    | 7042 Walgrove Court                               | MJD      | 11/23/2010    | N/A            | 11/23/2010    | Low      | None  | Sent resident letter notifying them of requirements to dispose of leaves properly  | Yes      |
| County Staff  | Washing equipment into storm drain  | None                            | 7251 Bell Creek Road                              | MJD      | 2/7/2011      | 2/7/2011       |               | Low      | None  | Spoke with Steven Oliver 559-7333 x-385 equipment rental manager to determine what actions can be taken to ensure that sediment does not enter the storm drains adjacent to the equipment rental area.   | Yes      |
| David Taylor  | David is an intern investigating impacts to drainage corridors to Beaverdam Creek. He discovered a disconnected sanitary lateral. | Spring Meadows                  | 7186 Hunterbrook Circle                           | MJD      | 2/25/2011     | 2/25/2011      | 3/1/2011      | High     | Referred to health department for investigation and resolution.   |  | Yes      |
| Anonymous   | Grease dumping in storm drain system by China Wok Restaurant  | Hanover Commons Shopping Center | China Wok, 9502 Chamberlayne Rd # 20              | MJD      | 3/3/2011      | 3/7/2011       |               | Low      | Investigation by Fire Marshall  | Under Investigation/ Spoke with manger he indicated he would engage a disposal company.  | Yes      |
| Steve Morris DEQ  | Multiple dumping and waste management issues  | None                            | 9004 Shady Grove Road                             | MJD      | 3/8/2011      | 3/8/2011       | 3/29/2011     | Low      | Investigation by DEQ, Firemarshal me  | Minor violations followed up with owner who decommissioned sink and took out the corner restroom. Other issues are with DEQ  | Yes      |
| <b>FY2012</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Pipe Crew   | Cool Wells  | Cool Wells                      |   | MJD      | 7/14/2011     | 7/14/2011      | 7/14/2011     | Low      | Sent letter to adacent owners regarding proper disposal of pet waste  | Letter sent notifying that car washing was against County ordinances. Will followup as needed with the store manager.  | Yes      |
|   | Cracker Barrel presure washing parking lot areas  | None                            | 7367 Bell Creek Road                              | MJD      | 11/11/2011    | 11/15/2011     | 11/15/2011    | Low      | Discussed alternatives to store manager   | Pressure washing outdoor areas   | Yes      |
| Anonymous   | Complaint indicated odor from storm drain inlet at 9563 Kings Charter Drive. Call in indicated they                               | Kings Charter                   | 9563 Kings Charter Drive                          | MJD      | 11/29/2011    | 11/29/2011     | 11/29/2011    | Low      | None, No odor was detected at the time of inspection during an active rain event.   | Talk to John Bourret about followup on storm drains in this shopping center. Also reinspect when/during dry weather to   | No       |
| Lee Mooney  | Discharge of carwash water into storm drain   | None                            | 10446 Lewistown Road                              | MJD      | 1/12/2012     | N/A            | 1/12/2011     | Low      | Referred to Planning for possible zoning violation  | Referred to Tim Wilson with zoning enforcement. Tim to inspect site.   | No       |
| Steve Chidsey   | Cleaning solutions appear to be dumped in storm drain Ginger Red Chinese Restaurant   | None                            | 7500 Jackson Arch Drive                           | MJD      | 2/20/2012     | 2/22/2012      | 2/22/2012     | Low      | Met with owner to discuss   | Discussed with facility owner regarding proper disposal of cleaning solutions. He indicated we had talked in 2010. Discussed no thing other than stormwater in stormdrain. Talked to owners and left materials for proper disposal.  | Yes      |
| Mike Flagg - Director of Public Works                   | Appears to be illicit discharge in Signal Hill Commercial area (Williams Bakery)  | None                            | 8080 Mechanicsville TP                            | MJD      | 2/22/2012     | 2/22/2012      | 2/22/2012     | Low      | None  |  | Yes      |
| Mike Flagg - Director of Public Works                   | Brandy Hill Plaza - Pesticide Spill Due to braoken valve on tank Discharge to stormwater ditch                                    | None                            | 7000 Mechanicsville Turnpike                      | MJD      | 4/26/2012     | 04/26/2012     |               | Low      | None  | Fire Marshal Coordinated response with Steve Morris of DEQ and VDACs   | Yes      |
| Cynthia Kemp  |   | Bruce Estates                   | 7225 Ann Cabell Lane                              | MJD      | 5/31/2012     | 05/31/2012     | 5/31/2012     | Low      | None  | Contacted Atlantic Plumbing who was working with VDOT to clean out storm sewer. Resolved issue with company and Marshall Winn of VDOT  | Yes      |
| <b>FY2013</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Whitney Robertson, Public Utilities                     | Water and grease stains behind restaurant   | Northcross Shopping Center      | 10180 Lakeridge Parkway                           | MJD      | 11/21/2012    | 11/21/2012     | 11/30/2012    | Low      | Letter sent to property owner and restaurant.   | Management company with shopping center to clean pavement and collect cleaning water for disposal. Wash water to be collected and disposed at RECO.  | No       |
| Whitney Robertson, Public Utilities                     | Odor rom Storm Sewer  |                                 | 10040 Sliding Hill Road                           | MJD      | 1/14/2013     | 1/14/2013      | 1/14/2013     | Low      | Mnone   | Feel that the odor is from sanitary main in the area.  | No       |
| David Taylor  | Poor farm Park Potential Illicit Discharge  |                                 |   | MJD      | 3/4/2013      | 3/4/2013       | 3/4/2013      | Low      | None  | For Waterline Floshing   | No       |
| Private Citizen   | Yard Debris in the Street   | Hanover Farms                   | Entrance  | MJD      | 4/23/2013     | N/A            | 4/23/2013     | Low      | None  | Referred to VDOT   | Yes      |
| Pub Works   | Car Wash  | Bojangles                       | 9330 Allee Rd                                     | MJD      | 9/8/2013      | NA             | 10/3/2013     | Low      | None  | NOV Letter Sent  | Yes      |
| Pub Works   | Car Wash  | Fas Mart                        | 9202 Chamberlayne Rd                              | MJD      | 9/29/2013     | NA             | 10/3/2013     | Low      | None  | NOV Letter Sent  | Yes      |
| <b>FY2013</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Kings Charter HOA                                       | Dumping /rinse from painting into storm drain (latec)   | Kings Charter                   | 10366 Aspen Grove Terrace                         | MJD      | 9/18/2013     | 10/9/2013      | 10/9/2013     | Low      | None  | Spoke to and sent letter to home owner advising of proper disposal of paint and proper clean up form painting.   | Yes      |
| John saunders   | Rick Tire and Auto dischare to public sewer   | NA                              | 9004 Shady Grove Road                             | MJD      | 10/23/2013    | 10/29/2013     | 11/4/2012     | low      | NOV   | NOV letter sent. owner agreed to stop discharge  | Yes      |

### Outfall General Information

|                                   |                          |                            |                      |
|-----------------------------------|--------------------------|----------------------------|----------------------|
| <b>Outfall ID Number:</b>         | G06-01-04                | <b>Date:</b>               | <input type="text"/> |
| <b>Subdivision Name:</b>          | Shady Grove Forest       | <b>Inspector Initials:</b> | <input type="text"/> |
| <b>Street Location:</b>           | 7431 Mountain Lily Lane  | <b>HUC Code:</b>           | G-06                 |
| <b>Relative Location:</b>         | behind/right             |                            |                      |
| <b>Location Type:</b>             | Residential              |                            |                      |
| <b>Tributary:</b>                 | Beaverdam Creek          |                            |                      |
| <b>DrainageType:</b>              | V-Shaped Ditch           |                            |                      |
| <b>Ditch Height (in):</b>         | 12                       |                            |                      |
| <b>Ditch Width (in ):</b>         | 36                       |                            |                      |
| <b>Ditch Material:</b>            | Concrete                 |                            |                      |
| <b>Ditch Bottom Width (in ):</b>  | <input type="text"/>     |                            |                      |
| <b>Parabolic:</b>                 | <input type="checkbox"/> |                            |                      |
| <b>Pipe Diameter (in inches):</b> | <input type="text"/>     |                            |                      |
| <b>Pipe Material:</b>             | <input type="text"/>     |                            |                      |

|            |            |
|------------|------------|
| Close Form | Enter Data |
|------------|------------|

### Inspection Observations

|                                |                      |                                    |                          |
|--------------------------------|----------------------|------------------------------------|--------------------------|
| <b>Stains:</b>                 | <input type="text"/> | <b>Turbid:</b>                     | <input type="text"/>     |
| <b>Deposits:</b>               | <input type="text"/> | <b>Damage:</b>                     | <input type="text"/>     |
| <b>Sheens:</b>                 | <input type="text"/> | <b>Color:</b>                      | <input type="text"/>     |
| <b>Growths:</b>                | <input type="text"/> | <b>Other:</b>                      | <input type="text"/>     |
| <b>Floatables:</b>             | <input type="text"/> | <b>Flow:</b>                       | <input type="checkbox"/> |
| <b>Odors:</b>                  | <input type="text"/> | <b>SC (Specific Conductivity):</b> | <input type="text"/>     |
| <b>Petroleum:</b>              | <input type="text"/> | <b>pH:</b>                         | <input type="text"/>     |
| <b>Sediments:</b>              | <input type="text"/> | <b>Temp (C):</b>                   | <input type="text"/>     |
| <b>Vegetation:</b>             | <input type="text"/> | <b>TDS (ppm):</b>                  | <input type="text"/>     |
| <b>Debris:</b>                 | <input type="text"/> | <b>FollowUp Required ?</b>         | <input type="text"/>     |
| <b>Maintenance Required ?:</b> | <input type="text"/> | <b>Picture...Note Time</b>         | <input type="text"/>     |

|                              |   |
|------------------------------|---|
| <b>Remarks/Observations:</b> | <input style="width: 100%; height: 80px;" type="text"/> |
|------------------------------|---|

B.

Date: \_\_\_\_-\_\_\_\_-\_\_\_\_

Initials: \_\_\_\_\_

# Major Outfall Field Inventory Form

General Location (Subdivision/Development): \_\_\_\_\_

Street Location: \_\_\_\_\_

Location (relative to street address): \_\_\_\_\_

Type:                      COMMERCIAL                      RESIDENTIAL                      INDUSTRIAL

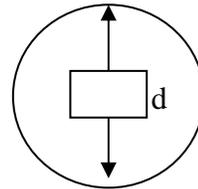
GPS Position:    Latitude: \_\_\_\_° \_\_\_\_' \_\_\_\_" N                      Longitude: \_\_\_\_° \_\_\_\_' \_\_\_\_" W

GPS Position:    Latitude DecDeg: \_\_\_\_\_ N                      Longitude DecDeg: \_\_\_\_\_ W

GPS Point ID#: \_\_\_\_\_                      HUC Code: \_\_\_\_\_                      Tributary: \_\_\_\_\_

- Pipe Material:
- Reinforced Concrete Pipe (RCP)
  - Corrugated Metal Pipe (CMP)
  - High Density Polyethylene (HDPE)
  - PVC
  - Steel
  - Other \_\_\_\_\_

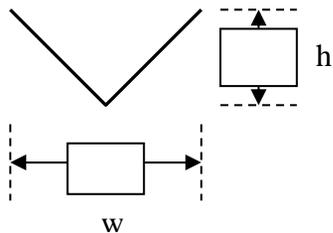
Pipe Dimensions (in inches):



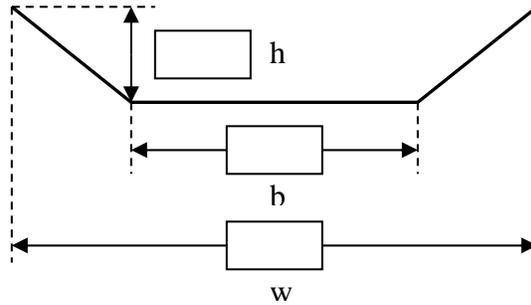
Ditch Material:     Concrete     Asphalt     Grass     Riprap     Earthen     Other \_\_\_\_\_

Ditch Dimensions (in inches):

V-Shaped:



Trapezoidal:



Physical Observations:  
(check all that apply)

- |                                       |                                       |                                     |
|---------------------------------------|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> Stains       | <input type="checkbox"/> Deposits     | <input type="checkbox"/> Sheens     |
| <input type="checkbox"/> Growths      | <input type="checkbox"/> Floatables   | <input type="checkbox"/> Odors      |
| <input type="checkbox"/> Petroleum    | <input type="checkbox"/> Sediment     | <input type="checkbox"/> Vegetation |
| <input type="checkbox"/> Debris       | <input type="checkbox"/> Turbid       | <input type="checkbox"/> Damage     |
| <input type="checkbox"/> Color: _____ | <input type="checkbox"/> Other: _____ |                                     |

IF FLOW IS PRESENT:

- SC (µS): \_\_\_\_\_ (specific conductivity)    - TDS (ppm): \_\_\_\_\_

- pH: \_\_\_\_\_                      - Temp (°C): \_\_\_\_\_

Remarks/Observations: \_\_\_\_\_

\_\_\_\_\_

### Outfall General Information

|                            |                          |
|----------------------------|--------------------------|
| Outfall ID Number:         | G05-01-01                |
| Subdivision Name:          | Brookshire               |
| Street Location:           | 7439 Shire Parkway       |
| Relative Location:         | behind/left              |
| Location Type:             | Residential              |
| Tributary:                 | Stony Run Creek          |
| DrainageType:              | V-Shaped Ditch           |
| Ditch Height (in):         | 18                       |
| Ditch Width (in ):         | 36                       |
| Ditch Material:            | Concrete                 |
| Ditch Bottom Width (in ):  |                          |
| Parabolic:                 | <input type="checkbox"/> |
| Pipe Diameter (in inches): |                          |
| Pipe Material:             |                          |

|                     |      |
|---------------------|------|
| Date:               |      |
| Inspector Initials: |      |
| HUC Code:           | G-05 |

Close Form

Enter Data

### Inspection Observations

|                         |  |                             |                          |
|-------------------------|--|-----------------------------|--------------------------|
| Stains:                 |  | Turbid:                     |                          |
| Deposits:               |  | Damage:                     |                          |
| Sheens:                 |  | Color:                      |                          |
| Growths:                |  | Other:                      |                          |
| Floatables:             |  | Flow:                       | <input type="checkbox"/> |
| Odors:                  |  | SC (Specific Conductivity): |                          |
| Petroleum:              |  | pH:                         |                          |
| Sediments:              |  | Temp (C):                   |                          |
| Vegetation:             |  | TDS (ppm):                  |                          |
| Debris:                 |  | FollowUp Required ?         |                          |
| Maintenance Required ?: |  | Picture...Note Time         |                          |

Remarks/Observations:

**BOARD OF SUPERVISORS**

**SEAN M. DAVIS-CHAIRMAN**  
HENRY DISTRICT

**WAYNE T. HAZZARD-VICE-CHAIRMAN**  
South Anna District

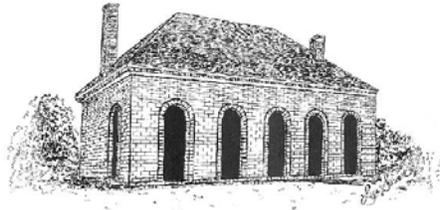
**ANGELA KELLY-WIECEK**  
CHICKAHOMINY DISTRICT

**W. CANOVA PETERSON**  
MECHANICSVILLE 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

**DEPARTMENT OF PUBLIC WORKS**

**J. MICHAEL FLAGG, P.E., DIRECTOR**  
**W. R. HARDMAN, III, 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

**Dear Hanover County Resident:**

**RE: Disposal of leaves, grass clippings, wood and other yard waste**

**There is evidence of illegal dumping on or adjacent to your property. Hanover County prohibits this activity. It is also prohibited by state and federal law. Please arrange for the proper handling of these materials on or from your property.**

**Dumping of leaves, grass clippings, wood and other yard waste into drainage channels, wetlands and adjacent areas is hazardous to the environment, causes costly infrastructure maintenance and repairs and potentially threatens property.**

**Please be aware that Hanover County accepts bagged leaves and grass for disposal at all 6 of its solid waste convenience centers. Loose leaves and grass and brush less than 4" in diameter and 6' long are accepted at the 301 Transfer Station and Mechanicsville Solid Waste Convenience Center for recycling. Debagged grass and leaves are also acceptable for recycling at the Courthouse and Elmont solid waste convenience centers.**

**Backyard composting is another option for leaves and grass. For more information on backyard composting, please go to either [www.cvwma.com](http://www.cvwma.com) or [www.hanover.com](http://www.hanover.com) (under Public Works). In addition, the Central Virginia Waste Management Authority (CVWMA) has discounted backyard compost bins available at [www.cvwma.com/recycling\\_programs/yard\\_waste.wbp](http://www.cvwma.com/recycling_programs/yard_waste.wbp).**

**Please help us keep Hanover County's environment and infrastructure safe by responsibly disposing of leaves, grass clippings, wood and other yard waste.**

**Contact the Hanover County Department of Public Works at 365-6181 if you have any questions.**

## Applicable County Code References

Section 18-17 of the Hanover County Code reads:

*Dumping. It shall be unlawful to dispose of solid waste other than at a properly permitted private or public solid waste facility where such use is a permitted use under the zoning ordinance, or is otherwise permitted by law.*

Under Section 18-21 it reads:

*It shall be unlawful for any person to store, accumulate or dump any garbage, or other waste material or substance in such quantities or in such a manner or for such a period of time as to constitute a nuisance or as to be injurious to the health or safety of the public, or to allow such storage, accumulation or dumping on any premises.*

*The placement of leaves, grass or other vegetative material in a drainage way or easement is a violation of these sections as well as Article IV. Municipal Separate Storm Sewer System (MS-4) Management Program as detailed in the Hanover County Code. Select Code sections regarding dumping of leaves in storm drainage systems are detailed below:*

### Section 10-73. Definitions

*Discharge means to dispose, deposit, spill, pour, inject, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, dumped, leaked or placed by any means.*

*Illicit discharge means any discharge to a storm sewer that is not composed entirely of stormwater, except discharges pursuant to a VSMP permit or other state permit, discharges resulting from firefighting activities, and discharges identified in applicable state regulations as not being significant contributors of pollutants.*

### Section 10-74. Discharge to storm sewer system.

*(a) It shall be unlawful to:*

- (1) Cause or allow illicit discharges to the county's storm sewer system;*
- (2) Discharge materials other than stormwater to the storm sewer system by spills, dumping or disposal without a valid state permit;*

### Section 10-76. Enforcement of article; penalty

*(a) Violations deemed misdemeanor; continuing violations; fine. Violation of the provisions of this article shall constitute a misdemeanor. Each day that a continuing violation of this article is maintained or permitted to remain shall constitute a separate offense. Violators shall be subject to a fine not exceeding one thousand dollars (\$1,000.00) or up to thirty (30) days' imprisonment for each violation, or both.*

*(b) Liability for costs for testing, containment, etc. Any person who, intentionally or otherwise, commits any of the acts prohibited by this article shall be liable to the county for all costs of testing, containment, cleanup, abatement, removal and disposal of any substance unlawfully discharged into the storm sewer system.*

Note that other penalties are available under State law for discharges to surface water.

**Individual Residential Lot Special Criteria**  
**Appendix A3**

## **Individual Residential Lot Special Criteria**

### **(Minimum Control Measure 5)**

As stated in Hanover Ordinance 13-12 Article V section 10-86, Long Term Maintenance of Permanent Stormwater Facilities, at the discretion of the Director, a recorded maintenance agreement need not be required for stormwater management facilities designed to treat stormwater runoff primarily from an individual residential lot on which they are located, provided it is demonstrated to the satisfaction of the Director that future maintenance of such facilities will be addressed through an enforceable mechanism at the discretion of the Director.

For individual residential lots, we intend to ensure long term care and maintenance through the use of a maintenance agreement, or with the combination of a drainage easement and a maintenance agreement.

**Supporting Materials**  
**Individual Residential Lot Special Criteria**

## **Maintenance Agreement**

The County's current maintenance agreement is recorded with the developer as the owner and obligates future owners under the agreement.

The Agreement:

- Requires proper installation operation and maintenance of the facilities
- Obligates 5 year inspection and certification of the BMP
- Provides access across land to the BMP from public ROW
- Allows for County access and maintenance if the facilities are not maintained properly

BMPs are placed in common area or within a drainage easement.

## **Individual Residential Lot Special Criteria**

As stated in Hanover Ordinance 13-12 Article V section 10-86, Long Term Maintenance of Permanent Stormwater Facilities, at the discretion of the Director, a recorded maintenance agreement need not be required for stormwater management facilities designed to treat stormwater runoff primarily from an individual residential lot on which they are located, provided it is demonstrated to the satisfaction of the Director that future maintenance of such facilities will be addressed through an enforceable mechanism at the discretion of the Director.

For individual residential lots, we intend to ensure long term care and maintenance through the use of a maintenance agreement, or with the combination of a drainage easement and a maintenance agreement.

The subdivision plan will identify the individual lot BMPs and provide the location and type of each of the BMPs within the subdivision. The maintenance agreement will be recorded identifying the BMPs on the plan as being subject to the agreement in the same way these agreements are recorded currently.

BMPs include, but are not limited to the following:

Non-proprietary BMPs

1. Vegetated Roof (Version 2.3, March 1, 2011);
2. Rooftop Disconnection (Version 1.9, March 1, 2011);
3. Rainwater Harvesting (Version 1.9.5, March 1, 2011);
4. Soil Amendments (Version 1.8, March 1, 2011);
5. Permeable Pavement (Version 1.8, March 1, 2011);
6. Grass Channel (Version 1.9, March 1, 2011);
7. Bioretention (Version 1.9, March 1, 2011);
8. Infiltration (Version 1.9, March 1, 2011);
9. Dry Swale (Version 1.9, March 1, 2011);
10. Wet Swale (Version 1.9, March 1, 2011);
11. Sheet Flow to Filter/Open Space (Version 1.9, March 1, 2011);
12. Extended Detention Pond (Version 1.9, March 1, 2011);
13. Filtering Practice (Version 1.8, March 1, 2011);

14. Constructed Wetland (Version 1.9, March 1, 2011); and
15. Wet Pond (Version 1.9, March 1, 2011).

Proprietary BMPs are of two types

1. Curb inlet systems
2. Box filtration/wetland systems

BMP Locations:

- Common Areas
- Individual Lots
- Multiple individual lots
- Multiple individual lots and in common areas

All Questions are for individual BMPs on residential lots:

\*\*Should a drainage easement accompany these BMPs or will a maintenance agreement referencing the subdivision plan be sufficient?

\*\*When the subdivision plat is prepared do the BMPs need to be reflected on the plat?

\*\*Should the subdivision plat identify the Maintenance Agreement for the BMPs and the plan associated with the maintenance agreement to close the loop? Currently the maintenance agreement and the drainage easements are referenced on the subdivision plat by number.

Who is responsible for BMP inspections and reports to the County as required by the maintenance agreement?

- The Subdivision or HOA
- The individual lot owner
- HOA and individual lot owner

Through the maintenance agreement, it appears we have access to BMPs across all lots within the subdivision from the public ROW to the BMP. Is this correct?

Scenario 1 – BMP controlled exclusively by individual

Example: Rooftop disconnection, permeable pavement on driveway, rainwater harvesting

An individual disconnects a BMP on his lot such that it is non-functional. To enforce the maintenance agreement do we approach the individual or the HOA.

Scenario 2 – BMP impacted by individual

Example: Grass channel through multiple lots, bioretention on multiple lots.

An individual interferes with the functionality of a BMP

Prepared by Hanover County

GPIN(S): \_\_\_\_\_

Consideration: \$0

**MAINTENANCE AGREEMENT**  
**FOR DRAINAGE AND STORMWATER MANAGEMENT FACILITIES**

THIS MAINTENANCE AGREEMENT (this “Agreement”) is entered into as of \_\_\_\_\_ 20\_\_\_\_, by \_\_\_\_\_, owner of the property which is the subject of this Agreement, for itself and its successors in title, including purchasers of subdivided lots or parcels, (the “Owner”) and **HANOVER COUNTY**, a political subdivision of the Commonwealth of Virginia (the “County”).

**RECITALS**

1. \_\_\_\_\_ is the Owner of the \_\_\_\_\_ acre parcel of land located in Hanover County, Virginia, designated GPIN \_\_\_\_\_ in the County’s tax records, having acquired the property by deed recorded in the Hanover County Circuit Court Clerk’s Office in Deed Book \_\_\_\_\_ page \_\_\_\_\_ (the “Property”), and

2. A drainage or stormwater management plan prepared by \_\_\_\_\_ dated \_\_\_\_\_, 20\_\_\_\_, titled \_\_\_\_\_” (all components and pages of which shall herein be termed the “Plan”) has been approved by the County; and

3. The Plan provides for permanent drainage, stormwater management, best management practices, erosion and sediment control facilities or other techniques designed to manage the quality and quantity of stormwater runoff (collectively herein termed the “Facilities”); and

4. Pursuant to the Federal Clean Water Act, the Virginia Chesapeake Bay Preservation Act, Erosion and Sediment Control Law, the Stormwater Management Act, and regulations adopted

by the Environmental Protection Agency, the Soil and Water Conservation Board, the State Water Control Board and Department of Environmental Quality, as they may be amended or superseded from time to time, or supplemented by additional regulation or legislation, as applicable, the County requires that the Facilities as shown on the Plan be constructed, operated, and adequately maintained by the Owner, whether located on the Property or elsewhere. Throughout this Agreement, maintenance of the Facilities includes repair and replacement, as necessary to meet the requirements of the Plan.

In consideration of the requirements of state and federal law and the approval of site or subdivision plans sought by the Owner, the parties agree as follows:

#### AGREEMENT

The Owner warrants that it is the owner of fee simple title to the Property and that there are no exceptions or restrictions which would interfere with or adversely affect the County's rights pursuant to this Agreement, or which would adversely affect the Owner's authority to enter into this Agreement.

The parties further agree as follows:

1. The Owner shall ensure the proper construction, operation, and maintenance of the Facilities depicted on the Plan and submit a construction record drawing for the Facilities to the County upon completion and prior to release of any surety and termination of any temporary permit. The construction record drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the Facilities have been constructed in accordance with the Plan.
2. The Owner shall maintain the Facilities depicted on the Plan as needed to ensure that the Facilities, are and remain in proper working condition in accordance with the Plan, including any associated maintenance plans or instructions and with applicable design standards and applicable

laws. The Owner shall also perform any maintenance and other actions identified in the periodic inspection reports required in Paragraph 3(b).

3. The Owner shall cause inspections of the Facilities to be conducted as follows:
  - a. The Owner agrees to cause inspections of the Facilities to be conducted by a person licensed as a professional engineer, architect, landscape architect, or land surveyor pursuant to Article I (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 of the Code of Virginia; a person who works under the direction and oversight of the licensed professional engineer, architect, landscape architect, or land surveyor; or a person who holds an appropriate certificate of competence from the State of Virginia. (“the Inspector”). The Inspector shall be retained by the Owner at the Owner’s expense. Inspections shall take place at least once every five (5) years after completion of the Facilities.
  - b. The Owner shall submit a written inspection report to the County within thirty (30) days after completion of each such inspection. . The inspection shall be in a form consistent with the standards of practice for inspecting similar stormwater facilities, and shall include, at a minimum:
    - i. The date of inspection;
    - ii. The name, address and professional classification of the Inspector;
    - iii. The condition of vegetation, fences, spillways (principal and emergency), embankments, reservoir areas, inlet and outlet channels, underground drainage structures, sediment loads, gates and valves, and any other item that could affect the proper functioning of the Facilities and conformance to the Plan; and

iv. A description of all maintenance or other actions that the Inspector deems necessary in order to ensure that the Facilities continue to function in accordance with the Plan and applicable laws.

4. The Owner conveys to the County and other appropriate governmental parties a Right of Access over the Property from public rights-of-way to the Facilities as shown on the Plan or as reasonably necessary for the purpose of ensuring the proper construction, operation and maintenance of the Facilities.

5. If the Owner fails to conduct and report the required inspections, the inspections are incomplete or improper, or the Owner fails to properly maintain the Facilities, the County may take enforcement actions pursuant to this Agreement and as provided for by County ordinances and state statutes and regulations.

6. After a judgment adverse to the Owner in any criminal or civil proceeding arising from an alleged failure to construct, operate and maintain the Facilities in accordance with the Plan or comply with this Agreement, if the Owner fails to correct the conditions demonstrated by the County in the legal proceeding within 30 days after entry of judgment, the County may enter onto the Property and take all measures reasonably necessary to bring the Facilities into compliance with the provisions of the Plan. Promptly after entry of a judgment adverse to the Owner, the County will provide notice to the Owner of the availability of this remedy.

7. In the event of an emergency in which there is imminent danger that the condition of the Facilities may permit or cause a public nuisance or unreasonable degradation of other properties, water quality, stream channels and other natural resources, as determined by the Director of Public Works, designee or other County employee, who shall be a licensed professional engineer, the County, its employees or agents, at its option, may enter immediately upon the Property or other properties where Facilities are located and take whatever steps it reasonably

determines to be necessary to correct or ameliorate the conditions causing the emergency. To the extent reasonable under the circumstances, the County shall provide the Owner with notice and an opportunity to correct the conditions. “Public nuisance” and “unreasonable degradation of other properties” shall include, but are not limited to, infestation of mosquitoes or vermin, foul odors, accumulation of debris, excessive growth of vegetation not specified in the Plan and which presents a threat to public health, flooding or imminent threat of flooding, ponding of water or erosion caused by failure to maintain the Facilities in accordance with the Plan.

7. The Owner shall not be entitled to compensation from the County for the use or occupancy of the property during the exercise of the County’s Right Of Access onto the Property for the purposes identified in this Agreement.

8. In the event that, pursuant to this Agreement, County performs work or expends any funds reasonably necessary for the maintenance, repair or replacement of the Facilities, necessitated by the unmaintained, non-compliant, or otherwise defective condition of the Facilities, including labor, equipment, supplies and materials, the Owner shall reimburse the County within thirty (30) days after Owner’s receipt of written notice of such expenditures from the County.

9. In the event the Owner disputes the assessment of costs incurred by the County pursuant to this Agreement, the Owner may appeal the amount of the assessed costs to the County Administrator by filing written notice of appeal within fourteen (14) days of the date of notice of the assessment. The County Administrator shall consider the appeal by the Owner promptly and shall provide the Owner with reasonable notice and an opportunity to be heard and no amounts shall be due during the pendency of the appeal to the County Administrator. The assessed costs, less any adjustments, shall be due and payable within thirty (30) days after the decision of the County Administrator which shall be in writing and dated. The assessment of costs under this

Agreement may be challenged pursuant to the provisions of the Code of Virginia governing the submission of claims against counties, Va. Code Section 15.2-1243, et seq., as they may be amended from time to time, but the pendency of a judicial challenge to the decision of the County Administrator shall not postpone the date that payment of assessed costs is due.

10. Any amounts owed by the Owner to the County and not paid within thirty (30) days after receipt of such notification of amounts due, or within thirty (30) days of the date of the County Administrator's decision on appeal shall be the obligation of the Owner. Upon recordation of a memorandum of lien, the full amount owed to the County by the Owner pursuant to this Agreement shall be a lien on the Property that runs with the land and an obligation of the Owner, and all successors or assigns, jointly and severally, as of the date of such recordation. In addition, the County may pursue any legal remedies for enforcement of the lien and collection of the amount owed.

11. Notice required by this Agreement shall be effective if given by certified mail to the Owner at the address listed in the County's tax records, unless the Owner has specifically requested in writing that notice be sent to a different address. Any notice to the County shall be given to the County Administrator, P. O. Box 470, Hanover, Virginia 23069-0470.

12. The responsibilities and obligations of the Owner shall constitute a covenant running with the land, and shall be binding upon all subsequent owners, their administrators, executors, assigns, heirs and any other successors in interest so long as they own the Property or any portion thereof served by the Facilities. Notwithstanding the foregoing, it is understood and agreed that any liability arising during the period of time when any such Owner owns the Property, or any portion thereof, shall remain a personal liability of such Owner

13. In no event shall any provision of this Agreement be interpreted to place any obligations upon the County, its officials, employees or agents, except as specifically described in this

Agreement. In no event shall any provision of this Agreement be interpreted to modify or waive the requirements of any federal, state or local law or regulation or the terms of any other agreements between the parties. This Agreement does not modify the statutory or common law duties of County officials, employees or agents in implementing the County's rights under this Agreement.

14. The laws of the Commonwealth of Virginia shall govern the construction of this Agreement and all claims and actions related to this Agreement shall be filed in the Hanover County General District Court or the Hanover County Circuit Court.

15. Words importing the singular number shall include the plural number and vice versa.

16. This Agreement shall be recorded among the land records in the Clerk's Office of the Hanover County Circuit Court.

[Signatures on Following Page]

The signatures and seals of the parties or of their authorized representatives are set out below in acknowledgment of this Agreement.

**OWNER**

\_\_\_\_\_

By: \_\_\_\_\_ (SEAL)  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

CITY/COUNTY OF \_\_\_\_\_,  
STATE/ COMMONWEALTH OF \_\_\_\_\_,

The foregoing instrument was acknowledged before me \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_, \_\_\_\_\_ {title}, on behalf of \_\_\_\_\_, Owner.

My commission expires: \_\_\_\_\_  
Notary registration number: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

Approved as to substance:

\_\_\_\_\_  
Name: J. Michael Flagg, P.E.  
Director of Public Works

**HANOVER COUNTY**, a political subdivision of  
the Commonwealth of Virginia,

Date: \_\_\_\_\_

By: \_\_\_\_\_ (SEAL)

Name:

Deputy County Administrator

COUNTY OF HANOVER,  
COMMONWEALTH OF VIRGINIA,

The foregoing instrument was acknowledged before me \_\_\_\_\_, 20\_\_\_\_, by  
\_\_\_\_\_, Deputy County Administrator, on behalf of Hanover  
County, a political subdivision of the Commonwealth of Virginia.

My commission expires: \_\_\_\_\_

Notary registration number: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**Operator Owned Stormwater Management Inspection  
Procedures  
Appendix A4**

# **Hanover County Stormwater Basin Inspection and Maintenance Requirements**

## **(Minimum Control Measure 5)**

### **Introduction**

#### Overview

The purpose of this guidance is to provide general information for the inspection and maintenance of both public and private stormwater basins located in Hanover County. This guidance is intended to meet the requirements of Hanover County's Municipal Separate Storm Sewer (MS4) permit with the Department of Environmental Quality (DEQ). Under the provisions of the permit, the County is required to ensure the proper operation and maintenance of stormwater basins.

#### Publicly Owned Stormwater Basin Inspections

Publicly owned and operated stormwater facilities are inspected by the Hanover County Department of Public Works (DPW). Inspections for publicly operated Regional Stormwater Management basins will be performed semi-annually. Inspections for other publicly owned stormwater basins that serve a specific County owned property will be performed annually. Inspections will document the proper operation and structural stability of the facilities and also identify any required maintenance.

#### Privately Owned Stormwater Basin Inspections

Inspections of privately owned basins are the responsibility of the facility owner or operator. When privately owned stormwater facilities are constructed, a maintenance agreement for the basin is recorded with Hanover County utilizing our standard forms (See Appendix B for historic agreements). All forms require maintenance of the facility to ensure proper working condition. The current Maintenance and Easement Agreement form requires an inspection of stormwater facilities within the first year of operation and at least once every five (5) years thereafter by a "qualified professional".

A qualified professional is an individual holding an appropriate professional certification from the Virginia Department of Professional and Occupational Regulation. Inspection reports certified by a qualified professional are required to be submitted to the County within 30 days of the inspection date. Inspection reports must address the items included on the Private Stormwater Facility Certification Inspection Form for Consultants (Appendix A). If maintenance is required the consultant may identify the required repairs on page 4 of the form. Once the maintenance is completed the consultant will re-inspect the site, and resubmit page 4 of the form certifying that the repairs are complete and that the facility is functioning in accordance with the approved plans. A guidance document titled "Stormwater Facility Inspection Guidance Document" explains the use of the form (Appendix A).

The County maintains a database of all private stormwater facilities in Hanover County that have recorded maintenance agreements. This database includes general information about the facility as well as information about the current inspection status. Inspection records that have been submitted for all private facilities are also maintained by the County.

Basin inspections focus on two critical areas, the condition of the embankment and the condition of the spillways (principal and emergency). Embankment inspections include examining the embankment for signs of erosion, animal trails and burrows, settlement in the top of dam, sink-holes, trees or brush growing on the dam, and seepage.

Spillway inspections include examining the spillways for any obstructions and evaluating the condition of the primary and emergency spillways. Concrete structures will be inspected for cracks, spalling, and breakage. Metal structures will be evaluated for corrosion, misalignment and their general condition.

#### Alternative Inspection Program

The Stormwater Regulations in 9VAC 25-890 require annual inspections or an alternative inspection program for all stormwater management facilities. Hanover County conducts inspection of all county owned facilities at least annually. The inspections of privately owned basins are the responsibility of the facility owner. Submission of the private facility inspection form to the County for review is recommended and/or required based on the recorded maintenance agreement. The County recommends annual inspections by the facility owner and has created a Private Stormwater Facility Inspection Form for Owners to assist with this responsibility. We have also developed a Stormwater Facility Inspection Guidance Document for Facility Owners to assist in filling out the inspection form by defining terms and structural components of the facility. All of these forms are attached in Appendix A.

Hanover County will notify owners, by mail, of their certification inspection deadline as defined in our database. This notification will occur in a timely fashion as to provide owners adequate time for completion. Once the certification inspections are received the database is updated and an approval letter is generated reflecting the next 3 year inspection due date. When certifications are not received we verify ownership and further measures are taken to contact the facility owner, such as phone calls and/or site visits. The highest priority will be given to structures where public safety is a factor. Subsequent prioritization will be based on regulated structures, quantity facilities that protect downstream features, and quality facilities that drain directly to impaired waters to minimize impacts.

#### General Maintenance Guidance

Maintenance for County owned/operated stormwater facilities is performed by the Department of Public Works or by the responsible County Department. Maintenance of private stormwater facilities is the responsibility of the facility owner and must be based on the results of the most recent facility inspection.

Embankments of county owned facilities will be mowed annually to view the structure, with a maximum cut grass height of 6" to 8". A grass cover will be maintained over the entire embankment for stabilization and it will be free from brush and woody vegetation. All rills, gullies and denuded areas will be backfilled with topsoil, and reseeded. Animal burrows will be backfilled and compacted as well. All trees, woody vegetation, and underbrush will be removed from the embankment. Clearing will extend 10' beyond the toe of dam and along the edges of the abutment at the discretion of the engineer as property lines and easements permit. Trees and woody vegetation are not allowed on the dam embankment because their root systems may damage the structural integrity of the embankment.

Spillway maintenance includes the removal of obstructions that could potentially limit flow through the principal or secondary spillway, or clog any type of drainage structure. Metal, concrete or plastic structures, pipes, and trash racks will be repaired or replaced, if necessary, so they function in accordance with the approved design. Grass lined emergency spillways will be maintained similar to the basin embankment including repair of erosion and maintenance of the grass.

**Operator Owned Stormwater Basin Inspection Criteria**  
**Supporting Materials**

**Private Stormwater Facility Certification Inspection Form  
for Consultants**

Hanover County

**GENERAL INFORMATION**

**Facility Information**

|                      |                      |                   |
|----------------------|----------------------|-------------------|
| <u>Facility Name</u> | <u>GPIN</u>          | <u>Basin Type</u> |
| <u>Latitude (N)</u>  | <u>Longitude (W)</u> | <u>Watershed</u>  |

**Professional's Information**

|   |              |                     |
|---|--------------|---------------------|
| <u>Name &amp; Address</u>   | <u>Phone</u> | Professional's Seal |
|   | <u>Fax</u>   |                     |
| <p>I certify that I am a qualified licensed professional in the Commonwealth of Virginia and that to the best of my knowledge, having completed an inspection, the facility referenced below is in conformance with the approved plans titled _____ and dated _____.</p> <p>except as noted.</p> <p align="center">(signature) (date)</p> |              |                     |

**Owner's Information**

|                           |              |
|---------------------------|--------------|
| <u>Name &amp; Address</u> | <u>Phone</u> |
|                           | <u>Fax</u>   |

**FACILITY CONDITIONS**

| ITEM                                      | YES | NO | N/A | REMARKS |
|---|-----|----|-----|---------|
| <b>1. General Dam Condition</b>           |     |    |     |         |
| A. Any alterations to dam?                |     |    |     |         |
| B. Inadequate grass cover?                |     |    |     |         |
| C. Settlements, irregularities or cracks? |     |    |     |         |
| D. Recent high water marks?               |     |    |     |         |
| <b>2. Upstream Impoundment Slope</b>      |     |    |     |         |
| A. Erosion?                               |     |    |     |         |
| B. Trees?                                 |     |    |     |         |
| C. Rodent holes?                          |     |    |     |         |
| D. Cracks, settlements or bulges?         |     |    |     |         |
| E. Inadequate or displaced riprap?        |     |    |     |         |

| ITEM   | YES | NO | N/A | REMARKS  |
|--|-----|----|-----|--|
| <b>3. Downstream Impoundment Slope</b>                         |     |    |     |  |
| A. Erosion?  |     |    |     |  |
| B. Trees?  |     |    |     |  |
| C. Rodent holes?   |     |    |     |  |
| D. Cracks, settlements or bulges?                              |     |    |     |  |
| E. Drains or wells flowing?                                    |     |    |     |  |
| F. Seepage or boils?   |     |    |     |  |
| <b>4. Abutment Contact</b>                                     |     |    |     |  |
| A. Erosion, cracks or slides?                                  |     |    |     |  |
| B. Seepage?  |     |    |     | Type & Size:<br><br>Concrete _____ Metal _____ Other Material _____<br><br>Open _____ Closed _____ |
| <b>5. Control Structure</b>                                    |     |    |     |  |
| Concrete _____ Metal _____ Other Material _____                |     |    |     |  |
| A. Spalling, Cracking or Scaling?                              |     |    |     |  |
| B. Exposed reinforcement?                                      |     |    |     |  |
| C. Corrosion present?  |     |    |     |  |
| D. Misalignment?   |     |    |     |  |
| E. Leakage?  |     |    |     |  |
| F. Trash rack damaged (or inadequate)?                         |     |    |     |  |
| G. Obstacles to inlet?   |     |    |     |  |
| H. Drawdown inoperative?                                       |     |    |     |  |
| <b>6. Outlet Structure (Principal Spillway or Barrel Pipe)</b> |     |    |     | Type & Size:   |
| Concrete _____ Metal _____ Other Material _____                |     |    |     |  |
| A. Spalling, cracking or scaling?                              |     |    |     |  |
| B. Exposed reinforcement?                                      |     |    |     |  |
| C. Joints displaced or offset?                                 |     |    |     |  |
| D. Leakage?  |     |    |     |  |
| E. Conduit misaligned?   |     |    |     |  |

| ITEM  | YES | NO | N/A | REMARKS |
|---|-----|----|-----|---------|
| <b>7. Emergency Spillway (Earthen ) ?</b>             |     |    |     |         |
| Lining: Grass _____ Riprap _____ Other Material _____ |     |    |     |         |
| A. Obstructions?                                      |     |    |     |         |
| B. Erosion?   |     |    |     |         |
| C. Rodent holes?                                      |     |    |     |         |
| D. Inadequate or displaced riprap?                    |     |    |     |         |
| <b>8. Emergency Spillway (Concrete) ?</b>             |     |    |     |         |
| A. Spalling, cracking or scaling?                     |     |    |     |         |
| B. Exposed reinforcement?                             |     |    |     |         |
| C. Joints displaced or offset?                        |     |    |     |         |
| D. Leakage?   |     |    |     |         |
| <b>9. Outlet Channel &amp; Protection</b>             |     |    |     |         |
| A. Inadequate/displaced outlet protection?            |     |    |     |         |
| B. Outlet protection impaired?                        |     |    |     |         |
| C. Outlet protection contains debris?                 |     |    |     |         |
| D. Outlet channel erosion?                            |     |    |     |         |
| E. Outlet channel obstruction?                        |     |    |     |         |
| <b>10. Forebay?</b>                                   |     |    |     |         |
| A. Excessive sediment accumulation?                   |     |    |     |         |
| B. Unstable/eroding overflow into basin?              |     |    |     |         |
| <b>11. Aquatic Landscaping?</b>                       |     |    |     |         |
| A. Needs maintenance to match the design?             |     |    |     |         |
| <b>12. Basin Area</b>                                 |     |    |     |         |
| A. Erosion?   |     |    |     |         |
| B. Rodent holes?                                      |     |    |     |         |
| C. Inadequate grass cover?                            |     |    |     |         |
| D. Inflow obstructions?                               |     |    |     |         |
| E. Excessive sediment accumulation?                   |     |    |     |         |
| F. Floating or accumulated debris?                    |     |    |     |         |
| G. Recent high water marks?                           |     |    |     |         |
| H. Obstructions to storage volume?                    |     |    |     |         |



**Private Stormwater Facility Inspection Form  
for Owners**

Hanover County

**GENERAL INFORMATION**

**Facility Information**

|  |                      |                   |
|--|----------------------|-------------------|
| <u>Plan Name</u>                           |                      | <u>GPIN #</u>     |
| <u>Associated Plan # (SPR #, E&amp;S#)</u> | <u>Plan AP date</u>  | <u>Basin Type</u> |
| <u>Latitude (N)</u>                        | <u>Longitude (W)</u> | <u>HUC Code</u>   |

**Owner's Information**

|                           |              |
|---------------------------|--------------|
| <u>Name &amp; Address</u> | <u>Phone</u> |
|                           | <u>Fax</u>   |

**FACILITY CONDITIONS**

| ITEM                                       | YES | NO | N/A | REMARKS |
|--|-----|----|-----|---------|
| <b>1. General Dam Condition</b>            |     |    |     |         |
| A. Any alterations to the dam?             |     |    |     |         |
| B. Inadequate Vegetated cover?             |     |    |     |         |
| C. Settlements, irregularities, or cracks? |     |    |     |         |
| D. Recent high water marks?                |     |    |     |         |
| <b>2. Upstream Impoundment Slope</b>       |     |    |     |         |
| A. Erosion?                                |     |    |     |         |
| B. Trees?                                  |     |    |     |         |
| C. Rodent holes?                           |     |    |     |         |
| D. Cracks, settlements or bulges?          |     |    |     |         |
| E. Inadequate or displaced riprap?         |     |    |     |         |
| <b>3. Downstream Impoundment Slope</b>     |     |    |     |         |
| A. Erosion?                                |     |    |     |         |
| B. Trees?                                  |     |    |     |         |
| C. Rodent holes?                           |     |    |     |         |
| D. Cracks, settlements, or bulges?         |     |    |     |         |
| E. Drains or wells flowing?                |     |    |     |         |
| F. Seepage or boils?                       |     |    |     |         |
| <b>4. Abutment Contact</b>                 |     |    |     |         |
| A. Erosion, cracks, or slides?             |     |    |     |         |
| B. Seepage?                                |     |    |     |         |

| ITEM   | YES | NO | N/A | REMARKS   |
|--|-----|----|-----|---|
| <b>5. Control Structure</b>                                    |     |    |     | Type & Size:<br><br><br><br><br><br><br><br><br><br>Open _____ Closed _____ |
| Concrete _____ Metal _____ Other Material _____                |     |    |     |   |
| A. Spalling, Cracking, Scaling?                                |     |    |     |   |
| B. Exposed reinforcement?                                      |     |    |     |   |
| C. Corrosion present?  |     |    |     |   |
| D. Misalignment?   |     |    |     |   |
| E. Leakage?  |     |    |     |   |
| F. Trash rack damaged (or inadequate)?                         |     |    |     |   |
| G. Obstacles to inlet?   |     |    |     |   |
| H. Drawdown inoperative?                                       |     |    |     |   |
| <b>6. Outlet Structure (Principal Spillway or Barrel Pipe)</b> |     |    |     | Type & Size:  |
| Concrete _____ Metal _____ Other Material _____                |     |    |     |   |
| A. Spalling, cracking, scaling?                                |     |    |     |   |
| B. Exposed reinforcement?                                      |     |    |     |   |
| C. Joints displaced or offset?                                 |     |    |     |   |
| D. Leakage?  |     |    |     |   |
| <b>7. Emergency Spillway (Earthen ) ?</b>                      |     |    |     |   |
| Lining: Grass _____ Riprap _____ Other Material _____          |     |    |     |   |
| A. Obstructions?   |     |    |     |   |
| B. Erosion?  |     |    |     |   |
| C. Rodent holes?   |     |    |     |   |
| D. Inadequate or displaced riprap?                             |     |    |     |   |
| <b>8. Emergency Spillway (Concrete) ?</b>                      |     |    |     |   |
| A. Spalling, cracking, scaling?                                |     |    |     |   |
| B. Exposed reinforcement?                                      |     |    |     |   |
| C. Joints displaced or offset?                                 |     |    |     |   |
| D. Leakage?  |     |    |     |   |
| <b>9. Outlet Channel &amp; Protection</b>                      |     |    |     |   |
| A. Inadequate/displaced outlet protection?                     |     |    |     |   |
| B. Outlet protection impaired?                                 |     |    |     |   |
| C. Outlet Protection contains debris?                          |     |    |     |   |
| D. Outlet channel erosion?                                     |     |    |     |   |
| E. Outlet channel obstruction?                                 |     |    |     |   |

| ITEM                                      | YES | NO | N/A | REMARKS |
|---|-----|----|-----|---------|
| <b>10. Sediment Forebay ?</b>             |     |    |     |         |
| A. Excessive sediment accumulation?       |     |    |     |         |
| B. Unstable/eroding overflow into basin?  |     |    |     |         |
| <b>11. Aquatic Landscaping ?</b>          |     |    |     |         |
| A. Needs maintenance to match the design? |     |    |     |         |
| <b>12. Basin Area</b>                     |     |    |     |         |
| A. Erosion?                               |     |    |     |         |
| B. Rodent holes?                          |     |    |     |         |
| C. Inadequate Vegetated cover?            |     |    |     |         |
| D. Inflow obstructions?                   |     |    |     |         |
| E. Excessive sediment accumulation?       |     |    |     |         |
| F. Floating or accumulated debris?        |     |    |     |         |
| G. Recent high water marks?               |     |    |     |         |
| H. Obstructions to storage volume?        |     |    |     |         |



Prepared by Hanover County

GPIN(S): \_\_\_\_\_

Consideration: \$0

**MAINTENANCE AGREEMENT**  
**FOR DRAINAGE AND STORMWATER MANAGEMENT FACILITIES**

THIS MAINTENANCE AGREEMENT (this “Agreement”) is entered into as of \_\_\_\_\_ 20\_\_\_\_, by \_\_\_\_\_, owner of the property which is the subject of this Agreement, for itself and its successors in title, including purchasers of subdivided lots or parcels, (the “Owner”) and **HANOVER COUNTY**, a political subdivision of the Commonwealth of Virginia (the “County”).

**RECITALS**

1. \_\_\_\_\_ is the Owner of the \_\_\_\_\_ acre parcel of land located in Hanover County, Virginia, designated GPIN \_\_\_\_\_ in the County’s tax records, having acquired the property by deed recorded in the Hanover County Circuit Court Clerk’s Office in Deed Book \_\_\_\_\_ page \_\_\_\_\_ (the “Property”), and

2. A drainage or stormwater management plan prepared by \_\_\_\_\_ dated \_\_\_\_\_, 20\_\_\_\_, titled \_\_\_\_\_” (all components and pages of which shall herein be termed the “Plan”) has been approved by the County; and

3. The Plan provides for permanent drainage, stormwater management, best management practices, erosion and sediment control facilities or other techniques designed to manage the quality and quantity of stormwater runoff (collectively herein termed the “Facilities”); and

4. Pursuant to the Federal Clean Water Act, the Virginia Chesapeake Bay Preservation Act, Erosion and Sediment Control Law, the Stormwater Management Act, and regulations adopted

by the Environmental Protection Agency, the Soil and Water Conservation Board, the State Water Control Board and Department of Environmental Quality, as they may be amended or superseded from time to time, or supplemented by additional regulation or legislation, as applicable, the County requires that the Facilities as shown on the Plan be constructed, operated, and adequately maintained by the Owner, whether located on the Property or elsewhere. Throughout this Agreement, maintenance of the Facilities includes repair and replacement, as necessary to meet the requirements of the Plan.

In consideration of the requirements of state and federal law and the approval of site or subdivision plans sought by the Owner, the parties agree as follows:

#### AGREEMENT

The Owner warrants that it is the owner of fee simple title to the Property and that there are no exceptions or restrictions which would interfere with or adversely affect the County's rights pursuant to this Agreement, or which would adversely affect the Owner's authority to enter into this Agreement.

The parties further agree as follows:

1. The Owner shall ensure the proper construction, operation, and maintenance of the Facilities depicted on the Plan and submit a construction record drawing for the Facilities to the County upon completion and prior to release of any surety and termination of any temporary permit. The construction record drawing shall be appropriately sealed and signed by a professional registered in the Commonwealth of Virginia, certifying that the Facilities have been constructed in accordance with the Plan.
2. The Owner shall maintain the Facilities depicted on the Plan as needed to ensure that the Facilities, are and remain in proper working condition in accordance with the Plan, including any associated maintenance plans or instructions and with applicable design standards and applicable

laws. The Owner shall also perform any maintenance and other actions identified in the periodic inspection reports required in Paragraph 3(b).

3. The Owner shall cause inspections of the Facilities to be conducted as follows:
  - a. The Owner agrees to cause inspections of the Facilities to be conducted by a person licensed as a professional engineer, architect, landscape architect, or land surveyor pursuant to Article I (§ 54.1-400 et seq.) of Chapter 4 of Title 54.1 of the Code of Virginia; a person who works under the direction and oversight of the licensed professional engineer, architect, landscape architect, or land surveyor; or a person who holds an appropriate certificate of competence from the State of Virginia. (“the Inspector”). The Inspector shall be retained by the Owner at the Owner’s expense. Inspections shall take place at least once every five (5) years after completion of the Facilities.
  - b. The Owner shall submit a written inspection report to the County within thirty (30) days after completion of each such inspection. . The inspection shall be in a form consistent with the standards of practice for inspecting similar stormwater facilities, and shall include, at a minimum:
    - i. The date of inspection;
    - ii. The name, address and professional classification of the Inspector;
    - iii. The condition of vegetation, fences, spillways (principal and emergency), embankments, reservoir areas, inlet and outlet channels, underground drainage structures, sediment loads, gates and valves, and any other item that could affect the proper functioning of the Facilities and conformance to the Plan; and

iv. A description of all maintenance or other actions that the Inspector deems necessary in order to ensure that the Facilities continue to function in accordance with the Plan and applicable laws.

4. The Owner conveys to the County and other appropriate governmental parties a Right of Access over the Property from public rights-of-way to the Facilities as shown on the Plan or as reasonably necessary for the purpose of ensuring the proper construction, operation and maintenance of the Facilities.

5. If the Owner fails to conduct and report the required inspections, the inspections are incomplete or improper, or the Owner fails to properly maintain the Facilities, the County may take enforcement actions pursuant to this Agreement and as provided for by County ordinances and state statutes and regulations.

6. After a judgment adverse to the Owner in any criminal or civil proceeding arising from an alleged failure to construct, operate and maintain the Facilities in accordance with the Plan or comply with this Agreement, if the Owner fails to correct the conditions demonstrated by the County in the legal proceeding within 30 days after entry of judgment, the County may enter onto the Property and take all measures reasonably necessary to bring the Facilities into compliance with the provisions of the Plan. Promptly after entry of a judgment adverse to the Owner, the County will provide notice to the Owner of the availability of this remedy.

7. In the event of an emergency in which there is imminent danger that the condition of the Facilities may permit or cause a public nuisance or unreasonable degradation of other properties, water quality, stream channels and other natural resources, as determined by the Director of Public Works, designee or other County employee, who shall be a licensed professional engineer, the County, its employees or agents, at its option, may enter immediately upon the Property or other properties where Facilities are located and take whatever steps it reasonably

determines to be necessary to correct or ameliorate the conditions causing the emergency. To the extent reasonable under the circumstances, the County shall provide the Owner with notice and an opportunity to correct the conditions. “Public nuisance” and “unreasonable degradation of other properties” shall include, but are not limited to, infestation of mosquitoes or vermin, foul odors, accumulation of debris, excessive growth of vegetation not specified in the Plan and which presents a threat to public health, flooding or imminent threat of flooding, ponding of water or erosion caused by failure to maintain the Facilities in accordance with the Plan.

7. The Owner shall not be entitled to compensation from the County for the use or occupancy of the property during the exercise of the County’s Right Of Access onto the Property for the purposes identified in this Agreement.

8. In the event that, pursuant to this Agreement, County performs work or expends any funds reasonably necessary for the maintenance, repair or replacement of the Facilities, necessitated by the unmaintained, non-compliant, or otherwise defective condition of the Facilities, including labor, equipment, supplies and materials, the Owner shall reimburse the County within thirty (30) days after Owner’s receipt of written notice of such expenditures from the County.

9. In the event the Owner disputes the assessment of costs incurred by the County pursuant to this Agreement, the Owner may appeal the amount of the assessed costs to the County Administrator by filing written notice of appeal within fourteen (14) days of the date of notice of the assessment. The County Administrator shall consider the appeal by the Owner promptly and shall provide the Owner with reasonable notice and an opportunity to be heard and no amounts shall be due during the pendency of the appeal to the County Administrator. The assessed costs, less any adjustments, shall be due and payable within thirty (30) days after the decision of the County Administrator which shall be in writing and dated. The assessment of costs under this

Agreement may be challenged pursuant to the provisions of the Code of Virginia governing the submission of claims against counties, Va. Code Section 15.2-1243, et seq., as they may be amended from time to time, but the pendency of a judicial challenge to the decision of the County Administrator shall not postpone the date that payment of assessed costs is due.

10. Any amounts owed by the Owner to the County and not paid within thirty (30) days after receipt of such notification of amounts due, or within thirty (30) days of the date of the County Administrator's decision on appeal shall be the obligation of the Owner. Upon recordation of a memorandum of lien, the full amount owed to the County by the Owner pursuant to this Agreement shall be a lien on the Property that runs with the land and an obligation of the Owner, and all successors or assigns, jointly and severally, as of the date of such recordation. In addition, the County may pursue any legal remedies for enforcement of the lien and collection of the amount owed.

11. Notice required by this Agreement shall be effective if given by certified mail to the Owner at the address listed in the County's tax records, unless the Owner has specifically requested in writing that notice be sent to a different address. Any notice to the County shall be given to the County Administrator, P. O. Box 470, Hanover, Virginia 23069-0470.

12. The responsibilities and obligations of the Owner shall constitute a covenant running with the land, and shall be binding upon all subsequent owners, their administrators, executors, assigns, heirs and any other successors in interest so long as they own the Property or any portion thereof served by the Facilities. Notwithstanding the foregoing, it is understood and agreed that any liability arising during the period of time when any such Owner owns the Property, or any portion thereof, shall remain a personal liability of such Owner

13. In no event shall any provision of this Agreement be interpreted to place any obligations upon the County, its officials, employees or agents, except as specifically described in this

Agreement. In no event shall any provision of this Agreement be interpreted to modify or waive the requirements of any federal, state or local law or regulation or the terms of any other agreements between the parties. This Agreement does not modify the statutory or common law duties of County officials, employees or agents in implementing the County's rights under this Agreement.

14. The laws of the Commonwealth of Virginia shall govern the construction of this Agreement and all claims and actions related to this Agreement shall be filed in the Hanover County General District Court or the Hanover County Circuit Court.

15. Words importing the singular number shall include the plural number and vice versa.

16. This Agreement shall be recorded among the land records in the Clerk's Office of the Hanover County Circuit Court.

[Signatures on Following Page]

The signatures and seals of the parties or of their authorized representatives are set out below in acknowledgment of this Agreement.

**OWNER**

\_\_\_\_\_

By: \_\_\_\_\_ (SEAL)  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

CITY/COUNTY OF \_\_\_\_\_,  
STATE/ COMMONWEALTH OF \_\_\_\_\_,

The foregoing instrument was acknowledged before me \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_, \_\_\_\_\_ {title}, on behalf of \_\_\_\_\_, Owner.

My commission expires: \_\_\_\_\_  
Notary registration number: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

Approved as to substance:

\_\_\_\_\_  
Name: J. Michael Flagg, P.E.  
Director of Public Works

**HANOVER COUNTY**, a political subdivision of  
the Commonwealth of Virginia,

Date: \_\_\_\_\_

By: \_\_\_\_\_ (SEAL)

Name:

Deputy County Administrator

COUNTY OF HANOVER,  
COMMONWEALTH OF VIRGINIA,

The foregoing instrument was acknowledged before me \_\_\_\_\_, 20\_\_\_\_, by  
\_\_\_\_\_, Deputy County Administrator, on behalf of Hanover  
County, a political subdivision of the Commonwealth of Virginia.

My commission expires: \_\_\_\_\_

Notary registration number: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

GPIN(S): \_\_\_\_\_

Consideration: \_\_\_\_\_

This Deed is exempt from the Grantees tax imposed by Va. Code §58.1-811.

**MAINTENANCE AND EASEMENT AGREEMENT**  
**Drainage and Stormwater Management Improvements**

THIS MAINTENANCE AND EASEMENT AGREEMENT (the “Agreement”) is entered into \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, owner of the property which is the subject of this Agreement, for itself and its successors in title (the “Owner”) and **HANOVER COUNTY**, a political subdivision of the Commonwealth of Virginia (the “County”).

**RECITALS**

WHEREAS, \_\_\_\_\_ is the owner of the \_\_\_\_\_ acre parcel of land located in Hanover County, Virginia, designated GPIN \_\_\_\_\_ in the County’s tax records, having acquired the real property by deed recorded in the Hanover County Circuit Court Clerk’s Office in Deed Book \_\_\_\_\_ page \_\_\_\_\_ (the “Real Property”), and

WHEREAS a Plan prepared by \_\_\_\_\_ dated \_\_\_\_\_, 20\_\_, titled “\_\_\_\_\_” (the “Plan”) has been approved or submitted for approval by the County; and

WHEREAS, the Plan provides for drainage, stormwater management or permanent erosion and sediment control measures and improvements (the “Facilities”); and

WHEREAS, the County requires that the Facilities as shown on the Plan be constructed and adequately maintained by the Owner, whether located on the Real Property or elsewhere;

NOW THEREFORE, in consideration of mutual benefits and other good and valuable consideration, the receipt and sufficiency of which are acknowledged by the signatures below, the parties agree as follows:

AGREEMENT

The Owner warrants that it is the owner of fee simple title to the Real Property and that there are no exceptions or restrictions which would interfere with or adversely affect the County's rights pursuant to this Agreement, or which would adversely affect the Owner's authority to enter into this Agreement. The Owner further agrees that it will execute any other documents or assurances required by the County, in order to meet the terms of this warranty or to achieve the fee simple ownership which is represented by the Owner. The Owner agrees for itself and its successors that it shall, in perpetuity, hold the County harmless from and pay all costs of defense of the County in the event of any claims or demands resulting from failure to comply with the terms of this warranty of fee simple ownership. In no event shall this Agreement be interpreted to obligate the County, its officials and employees, except at the option of the County, to maintain the Facilities, any easement areas, or the Real Property.

The parties further agree as follows:

1. The Owner shall promptly provide maintenance for the Facilities depicted on the Plan as needed to ensure that the Facilities are and remain in proper working condition in accordance with the Plan and with County approved design standards and applicable laws, including without limitation the Hanover County Code, as amended from time to time, and in accordance with the inspection report referred to below, if applicable. Maintenance shall include repair, reconstruction or replacement of the Facilities as necessary to meet the standards of this Agreement.

2. In the event the Facilities include a stormwater management facility (quality or quantity basin), the Owner shall cause inspections of the stormwater management facility to be conducted as follows:

- a. The Owner agrees to cause inspections of the stormwater management facility to be conducted by a professional engineer, registered in Virginia and approved by the County (the “Inspector”). The Inspector shall be retained by the Owner at the Owner’s expense. Inspections shall take place during the last sixty (60) days of the first year of operation of the stormwater management facility and at least once every three (3) years thereafter.
- b. The Owner shall submit a written inspection report to the County within thirty (30) days after each inspection including:
  - i. The date of inspection;
  - ii. The name of the Inspector;
  - iii. The condition of vegetation, fences, spillways (principal and emergency), embankments, reservoir areas, inlet and outlet channels, underground drainage structures, sediment loads, gates and valves, and any other item that could affect the proper functioning of the Facilities; and
  - iv. A description of all maintenance that the Inspector deems necessary in order to ensure that the stormwater management facility continues to function in accordance with the design and the approved Plan.

3. The Owner conveys to the County an easement over the Real Property for access from public rights-of-way to the Facilities and for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining, repairing or replacing the Facilities as necessary to

ensure their proper working condition. If any Facilities are not located on the Real Property the Owner has also provided for easements to be conveyed to the County for those areas.

4. In the event the Owner fails to correct any defects or to commence the correction of such defects to maintain the proper working condition of the Facilities within fourteen (14) days after Owner's receipt of written notice of such defects, the County may enter upon the Real Property or other properties where the Facilities are located pursuant to easements and take whatever reasonable steps it deems necessary to maintain the Facilities.

5. In the event of an emergency involving the Facilities, as determined by the County Administrator or designee, the County, its employees or agents, at its option, may enter immediately upon the Real Property and take whatever reasonable steps it deems necessary to meet the emergency. The County shall notify the Owner by any appropriate means of such emergency and entry as soon as practicable. Should the Owner fail to respond, or should the Owner inform the County that it intends not to respond within the specified period of time, or should it be necessary to protect the public health, safety and welfare, the County may, at its option, enter immediately upon the Real Property or other properties on which the Facilities are located pursuant to easements and take whatever reasonable steps it deems necessary to address the emergency, all at the expense of the Owner.

6. The County shall not pay any compensation at any time for any use of the Real Property in any way necessary for the inspection and maintenance of the Facilities, including access to the Facilities.

7. In the event the County, pursuant to this Agreement, performs work or expends any funds reasonably necessary for the maintenance or construction of the Facilities, including labor, equipment, supplies and materials, the Owner shall reimburse the County within ten (10) days after Owner's receipt of written notice of such expenditures from the County.

8. Any amounts owed by the Owner to the County and not paid within ten (10) days after receipt of such notification shall be the obligation of the owner of record of the Real Property or any portion thereof, or successors or assigns, as of the date the liability arose. The full amount owed to the County by the Owner for such maintenance or construction of the Facilities shall be a lien on the Real Property. The lien shall be recorded by the County in the lien book in the Clerk's Office, or, if this is not possible for any reason, in a lien book maintained by and in the Office of the County Administrator or designee.

9. The Owner, its assigns and any other successors in interest, shall indemnify and hold harmless the County and its agents and employees for any and all claims, damages, accidents, casualties, and occurrences which might arise or be asserted against the County arising out of or resulting from the construction, presence, existence, maintenance or use of the Facilities by the Owner, except for those damages, accidents, casualties, occurrences or claims arising out of the direct or indirect acts or omissions of the County.

10. In the event a claim is asserted against the County, its agents or employees, arising in connection with the Facilities, and except for those claims arising out of the acts or omissions of the County, the County shall promptly notify the Owner and the Owner shall defend at its own expense any suit based on such claim. If any judgment or claim against the County, its agents or employees arising in connection with the Facilities shall be allowed, and not otherwise arising out of the acts or omissions of the County, the Owner shall pay the amounts of all costs and expenses related to the claim or defense of the claim immediately upon written demand.

11. Except in the event of emergency, notices required by this Agreement shall be effective if given by certified mail, return receipt requested, including change of address or legal status of the Owner. Any notice to the County shall be given to the County Administrator, P. O. Box 470, Hanover, Virginia 23069-0470, and notices, including emergency notices, to the Owner in the

name and at the address given below.

Owner: \_\_\_\_\_

Address: \_\_\_\_\_

The Owner agrees to notify the County immediately of any change of legal status or of address. In the event of change of ownership or address, notification by the County to the owner at the address listed in the County real estate assessment records shall be deemed adequate.

12. The responsibilities and obligations of the Owner shall constitute a covenant running with the land, and shall be binding upon all subsequent owners, their administrators, executors, assigns, heirs and any other successors in interest so long as they own the Real Property or any portion thereof served by the Facilities. Notwithstanding the foregoing, it is understood and agreed that any liability arising during the period of time when any such owner shall own the Real Property or any portion thereof shall remain a personal liability as to such owner, and the Owners and all successors in title shall be jointly and severally liable for amounts due pursuant to this Agreement.

13. In no event shall any provision of this Agreement be interpreted to place any obligations upon the County, its officials, employees or agents, except as specifically described in this Agreement. In no event shall any provision of this Agreement be interpreted to modify or waive the requirements of any federal, State or local law or regulation or the terms of any other agreements between the parties.

14. The laws of the Commonwealth of Virginia shall govern the construction of this Agreement and all claims and actions related to this Agreement shall be filed in the Hanover County General District Court or the Hanover County Circuit Court.

15. Words importing the singular number shall include the plural number and vice versa.

16. This Agreement shall be recorded in the Clerk's Office.

The signatures and seals of the parties or of their authorized representatives are set out below in acknowledgment of this Agreement.

**OWNER**

\_\_\_\_\_

By: \_\_\_\_\_ (SEAL)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

CITY/COUNTY OF \_\_\_\_\_,  
STATE/ COMMONWEALTH OF \_\_\_\_\_,

The foregoing instrument was acknowledged before me \_\_\_\_\_, 2010, by \_\_\_\_\_, \_\_\_\_\_ {title}, on behalf of \_\_\_\_\_, Owner.

My commission expires: \_\_\_\_\_

\_\_\_\_\_

Approved as to substance:

\_\_\_\_\_  
Name: J. Michael Flagg, P.E.  
Director of Public Works

**HANOVER COUNTY**, a political subdivision of the Commonwealth of Virginia,

Date: \_\_\_\_\_

By: \_\_\_\_\_ (SEAL)

Name:  
Deputy County Administrator

COUNTY OF HANOVER,  
COMMONWEALTH OF VIRGINIA,

The foregoing instrument was acknowledged before me \_\_\_\_\_, 2010 by \_\_\_\_\_, Deputy County Administrator, on behalf of Hanover County, a political subdivision of the Commonwealth of Virginia.

My commission expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**MAINTENANCE AGREEMENT**

This MAINTENANCE AGREEMENT is made as of the 10th day of May, 1991, by Virginia Precast, a Division of ESSROC Materials Inc. (the "Owner"), and the COUNTY OF HANOVER, VIRGINIA (the "County").

RECITALS

WHEREAS, Virginia Precast, a Division of ESSROC Materials Inc., is the Owner of that 38.23 acre parcel of land located at Chickahominy District in Hanover County, Virginia, and as described on the property description dated March 25, 1991, attached hereto as Exhibit A, and in the deed recorded at the Hanover County Circuit Court Clerk's office as shown on Exhibit B attached hereto (the "Property"); and

WHEREAS, a Site Plan/Subdivision Plat prepared by Resource International, Ltd., dated November 23, 1988 and entitled SPR-54-84 Site Plan has been approved or submitted for approval by the County (the "Plan"); and

WHEREAS, said Site Plan/Subdivision Plat provides for a detention/retention facility and other drainage or permanent erosion and sediment control measures and improvements within the confines of the property (the "Facilities"); and

WHEREAS, the County requires that the Facilities as shown on the Plan prepared by Resource International, Ltd., dated November 23, 1988 and designated SPR 54-84 Site Plan be constructed and adequately maintained by the Owner;

Deed # 7281  
 Org. Returned: Grantor Grantee  
 Others:  
 RICHARD L. SHELTON, CLERK

NOW, THEREFORE, in consideration of mutual benefits and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

1. This Agreement shall be binding on the parties, their administrators, executors, successors, heirs, assigns and agents.

2. Indefinitely and at all times, the Facilities as shown on the Plan shall be maintained in good working order acceptable to the County.

3. The maintenance of detention/retention ponds shall include but not be limited to: (1) Planting and maintaining a vegetative cover on the slopes surrounding the pond, (2) maintaining all outflow devices in good working order and repairing and replacing them when necessary, (3) removing silt and other debris so as to maintain the elevation of the bottom of the facility as shown on the approved plans, and (4) regrading to maintain the slopes of the Facilities' sides as shown on the approved plans.

4. The Owner, hereby grants, bargains and conveys to the County an easement over the Property to take whatever steps it deems reasonably necessary to maintain the Facilities. This easement may only be exercised by the County in the event that the Owner fails to correct defects or does not commence action necessary to correct any defects to the good working order of the

Facilities within fourteen (14) days after written notice of such defects to Owner.

5. In the event Owner fails to correct any defects or commence the correction of such defects to the good working order of the Facilities within fourteen (14) days after written notice of such defects to Owner, the County may enter upon the Property and take whatever steps it deems reasonably necessary to maintain said Facilities. It is expressly understood and agreed that the County is under no obligation to maintain or repair the Facilities and in no event shall this Agreement be construed to impose any such obligation on the County.

6. In the event of an emergency involving the Facilities, as determined by the Director of Public Works, the County, at its option, may enter immediately upon the property and take whatever steps it deems reasonably necessary to meet the emergency. Alternatively, the County may notify the Owner by phone at (804) 798-6068, to take whatever action is necessary within a specified period of time. Should the Owner fail to respond, or should the Owner inform the County that it intends not to respond within the specified period of time, the County may, at its option, enter immediately upon the land and take whatever steps it deems reasonably necessary to meet the emergency.

7. The County shall not pay any additional compensation at any time for its use of the Property in any way necessary for the inspection and maintenance of the facility, including access to the facility.

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8. In the event the County, pursuant to this Agreement, performs work or expends any funds reasonably necessary for the maintenance of the Facilities, including labor, equipment, supplies and materials, the Owner shall reimburse the County, within ten (10) days after the County gives the Owner written notice of such expenditures.

9. The Owner, its executors, administrators, assigns and any other successors in interest, shall indemnify and hold harmless the County and its agents and employees for any and all damages, accidents, casualties, occurrences or claims which might arise or be asserted against the County arising out of or resulting from the construction, presence, existence or maintenance of the Facilities by the Owner or the County; provided, however, that whenever the Owner is willing but unable to respond to an emergency involving the Facilities, and the County acts pursuant to Paragraph 6 hereof, the County shall be indemnified and held harmless by the Owner only when the County shall have acted with reasonable care.

10. In the event a claim is asserted against the County, its agents or employees, the County shall promptly notify the Owner and the Owner shall defend at its own expense any suit based on such claim, provided, that, when claims are asserted against the County for actions which it has taken or work it has done pursuant to an emergency involving the Facilities to which the Owner was willing but unable to respond, Owner shall defend the County only when the County shall have acted with reasonable care. If any judgment or claim against the County, its agents or employees shall be allowed, the Owner shall pay all costs and expenses immediately.

11. This Agreement shall be recorded in the Hanover County Circuit Court Clerk's office, shall constitute a covenant running

with the land, and shall be binding upon its administrators, executors, assigns, heirs and any other successors in interest.

12. All notices herein shall be in writing and shall be hand delivered to the parties or sent by registered or certified mail, return receipt requested, postage paid, addressed to the parties as follows:

To the County:            Director of Public Works  
                                 P. O. Box 470  
                                 Hanover Courthouse  
                                 Hanover, VA 23069

To Owner:                 Virginia Precast  
                                 A Division of ESSROC Materials Inc.  
                                 P. O. Drawer 1020  
                                 Ashland, Virginia 23005

With copy to:             ESSROC Materials Inc.  
                                 6797 North High Street  
                                 Worthington, Ohio 43085

Such notice shall be deemed to have been given upon hand delivery or upon deposit in the mail as aforesaid. Any change of persons or addresses shall be provided in the aforesaid manner.

13. Any amounts owed to the County and not paid within ten (10) days of the date of notification shall be the joint and several obligation of all of the successors in interest of the Owner. The full amounts owed shall be liens on the Property and on each and every portion of the Property. Liens shall be recorded by the Hanover County Administrator in the Lien Book, which shall be maintained in a location designated by the Administrator and accessible to the public.

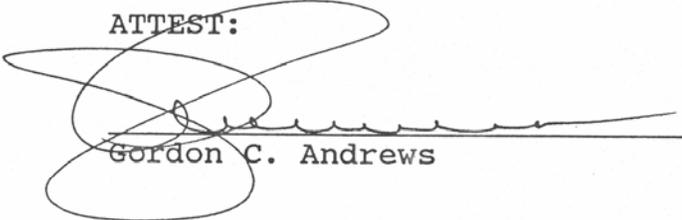
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WITNESS the following signatures and seals:

ESSROC MATERIALS INC.

By:   
Name: Robert M. Rayner  
Title: Vice President and Chief  
Financial Officer

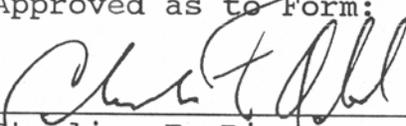
ATTEST:

  
Gordon C. Andrews

COUNTY OF HANOVER, VIRGINIA

By:   
Name:  
Title:

Approved as to Form:

  
Sterling E. Rives  
County Attorney

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Acknowledgement

STATE OF NEW JERSEY )  
 )  
COUNTY OF SOMERSET ) SS.:

On this 10th day of May, 1991, before me, Joy F. Sheehan, the undersigned Notary Public, personally appeared Robert M. Rayner, who acknowledged himself to be the Vice President and Chief Financial Officer of ESSROC Materials Inc., a Pennsylvania corporation, and that he, as such Vice President and Chief Financial Officer, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing his name thereto.

IN WITNESS WHEREOF I hereunto set my hand and official seal.

JOY F. SHEEHAN  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires July 26, 1995

*Joy F. Sheehan*  
Notary Public



\*\*\*\*\*

COMMONWEALTH OF VIRGINIA,  
COUNTY OF HANOVER, to-wit:

The foregoing instrument was acknowledged before me this 21st day of June, 1991, by Richard R. Johnson.

My commission expires: July 31, 1993

*Evelyn P. Carneal*  
Notary public

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# **Identification of Locations Requiring SWPPP**

## **Appendix A5**

**Identification of Locations Requiring SWPPP  
(Minimum Control Measure 6)**

High Priority Facility Identification

[Section II.B.6.b(1) of the MS4 General Permit]

In the fall of 2013, in order to meet the requirements of the County's MS4 permit, meetings were held with all Hanover County departments that operated facilities that could potentially meet the criteria for a high priority facility. 100% of Hanover owned facilities were screened for potential stormwater impacts. Meetings were held with a number of Hanover County Departments including the following agencies: Fire and EMS, Public Utilities, Public Works, and the Hanover County School Board. In order to prepare for the meetings, the requirements for identifying high priority facilities, and a list of potential facilities were provided to these departments before the meeting. This information is provided as an attachment to this document. At each meeting the requirements for high priority facilities were discussed to determine if any of the facilities operated by the department were potential high priority facilities. In addition, for all facilities operated by the Hanover County School Board, site inspections were conducted in order to identify any stormwater pollutant potential. Recommendations were provided to the school board to eliminate some potential pollutant sources.

During discussions, with Fire and EMS, Public Utilities and the Hanover County School Board, no high priority facilities or practices that could potentially pollute stormwater were identified. Discussions with Hanover Public Works identified the Mechanicsville Solid Waste Service Convenience Center, at 7427 Verdi Lane in Mechanicsville as a potential source of stormwater pollutants. Therefore, under the requirements of the MS4 permit an SWPPP plan will be developed for this facility by July 1, 2017.

Notes:

<sup>1</sup> Meeting dates were as follows: Fire & EMS (September 4, 2013), Public Utilities (September 6, 2013), Schools (Oct 1, 2013)

Attachments

- 1) High Priority Site Identification
- 2) List of Potential High Priority sites in the MS4

**High Priority Facility Identification  
Supporting Materials**

## High Priority Site Identification

Under the County's new MS4 permit by June 30 2014 the County must:

Identify Municipal High-Priority Facilities. These high-priority facilities shall include

- (i) composting facilities
- (ii) equipment storage and maintenance facilities
- (iii) materials storage yards
- (iv) pesticide storage facilities
- (v) public works yards
- (vi) recycling facilities
- (vii) salt storage facilities
- (viii) solid waste handling and transfer facilities
- (ix) vehicle storage and maintenance yards.

After we identify these facilities we must determine which of the municipal high-priority facilities have a high potential of discharging pollutants. This is where Public Works will need the help of each department to determine if the facilities that we have identified meet any of the criteria below.

We have attached a list of non-office facilities that may meet the criteria above. These must be facilities within the MS4 /Urbanized area of the County. There are some facilities that are not on the list for that reason.

If a department believes that any of the facilities what we have identified in the attached facility list meet this criteria or if they are aware of other facilities that meet this criteria, they should contact Mike Dieter in Public Works to discuss.

Municipal high-priority facilities will be considered to have a high potential for discharging pollutants if those facilities identified are not covered under a separate VPDES permit and have any of the following materials or activities occur that are expected to have exposure to stormwater resulting from rain, snow, snowmelt, or runoff:

- (a) Areas where residuals from using, storing or cleaning machinery or equipment remain and are exposed to stormwater;
- (b) Materials or residuals on the ground or in stormwater inlets from spill[s] or leaks;
- (c) Material handling equipment (except adequately maintained vehicles);
- (d) Materials or products [that would be expected to be mobilized in stormwater runoff during loading/unloading or transporting activities (e.g., rock, salt, fill dirt);
- (e) Materials or products stored outdoors (except final products intended for outside use where exposure to stormwater does not result in the discharge of pollutants)
- (f) Materials or products that would be expected to be mobilized in stormwater runoff contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
- (g) Waste material except waste in covered, non-leaking containers (e.g., dumpsters);
- (h) Application or disposal of process wastewater (unless otherwise permitted); or,
- (i) Particulate matter or visible deposits of residuals from roof stacks, vents or both not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater runoff.



Contact: Fire-EMS

Facility: Ashcake Volunteer Rescue Squad, Station #13 Fac# 9

GPIN 8707-22-6722

Facility: Ashcake Rescue Squad

HUC Code: YO30 In MS4 ? Y Acres: 5.73

Site Priority: High

Address: 8375 NEW ASHCAKE ROAD

Facility: Ashland Volunteer Fire Station 1 Fac# 10

GPIN 7880-05-3861

Facility: Ashland Fire Station

HUC Code: YO27 In MS4 ? Y Acres: 2.432

Site Priority: High

Address: 501 ARCHIE CANNON DRIVE

Facility: East Hanover Volunteer Rescue Squad, Station #14 Fac# 16

GPIN 8735-02-4048

Facility: East Hanover Rescue Sq

HUC Code: JL19 In MS4 ? Y Acres: 4.775

Site Priority: High

Address: 8105 WALNUT GROVE ROAD

Facility: Henry Volunteer Fire Station #6 Fac# 20

GPIN 8706-67-3972

Facility: Henry Fire Station

HUC Code: YO30 In MS4 ? Y Acres: 1.99

Site Priority: High

Address: 9634 CHAMBERLAYNE ROAD

Facility: Mechanicsville Volunteer Fire Station #7 Fac# 21

GPIN 8704-93-6197

Facility: Mechanicsville Fire Stati

HUC Code: JL19 In MS4 ? Y Acres: 2.62

Site Priority: High

Address: 7161 STONEWALL PARKWAY

Contact: Public Utilities

Facility: Ashland WWTP Fac# 49

GPIN 7870-87-0491

Facility: Ashland WWTP

HUC Code: YO11 In MS4 ? Y Acres: 5

Site Priority: High

Address: 0

GPIN 7870-87-0970

Facility: Ashland WWTP

HUC Code: YO11 In MS4 ? Y Acres: 23.974

Site Priority: High

Address: 106 WEST VAUGHAN ROAD

Facility: Atlee Road Storage Tank & PS - HSWS Fac# 86

GPIN 8706-11-5021

Facility: Water Tank

HUC Code: JL17 In MS4 ? Y Acres: 0.45

Site Priority: High

Address: 9113 ATLEE ROAD

Facility: Avondale PS Fac# 65

GPIN 8706-54-9540

Facility: Lift Station

HUC Code: YO30 In MS4 ? Y Acres: 0.064

Site Priority: High

Address: 9236 SHADY GROVE ROAD

Facility: Beaverdam Creek PS Fac# 64

GPIN 8714-30-5606

Facility: Lift Station

HUC Code: JL19 In MS4 ? Y Acres: 0

Site Priority: High

Address: 7040 SENN WAY

Facility: Crump Creek PS Fac# 57

GPIN 8707-63-2288

Facility: Lift Station

HUC Code: YO28 In MS4 ? Y Acres: 0.5

Site Priority: High

Address: 10174 GEORGIE DRIVE

Facility: Future Lower Opossum Creek PS Site Fac# 75

GPIN 8706-87-9377

Facility: Pump Station

HUC Code: YO30 In MS4 ? Y Acres: 0.858

Site Priority: High

Address: 0

Facility: Hardees PS Fac# 55

|                |   |           |                     |
|----------------|---|-----------|---------------------|
| Facility:      | Hardees PS                                  | Fac#      | 55                  |
| GPIN           | 7870-91-9558                                | Facility: | Lift Station        |
| HUC Code:      | YO27  | In MS4 ?  | Y Acres: 0.014      |
| Site Priority: | High  |           |                     |
| Address:       | 507 COLLEGE AVENUE                          |           |                     |
| Facility:      | Harris Court Well, Storage Tank & PS - HSWS | Fac#      | 94                  |
| GPIN           | 8714-99-5206                                | Facility: | Well House          |
| HUC Code:      | JL19  | In MS4 ?  | Y Acres: 0.243      |
| Site Priority: | High  |           |                     |
| Address:       | 7014 CALMAR DRIVE                           |           |                     |
| Facility:      | High Point Farms PS #3 (Poteet)             | Fac#      | 54                  |
| GPIN           | 8714-80-2959                                | Facility: | Lift Station        |
| HUC Code:      | JL19  | In MS4 ?  | Y Acres: 0.069      |
| Site Priority: | High  |           |                     |
| Address:       | 7087 BROOKING WAY                           |           |                     |
| Facility:      | Jackson Ave Storage Office Bldg - HSWS      | Fac#      | 89                  |
| GPIN           | 8704-85-8882                                | Facility: | Water Tank          |
| HUC Code:      | JL19  | In MS4 ?  | Y Acres: 0          |
| Site Priority: | High  |           |                     |
| Address:       | 7296 JACKSON AVENUE                         |           |                     |
| Facility:      | LeReve Manor PS                             | Fac#      | 59                  |
| GPIN           | 8724-52-0484                                | Facility: | Lift Station        |
| HUC Code:      | JL19  | In MS4 ?  | Y Acres: 0.194      |
| Site Priority: | High  |           |                     |
| Address:       | 7128 HARVER WAY                             |           |                     |
| Facility:      | Lockwood Pump Station - HSWS                | Fac#      | 85                  |
| GPIN           | 7795-86-6529                                | Facility: | Water Pump Facility |
| HUC Code:      | JL17  | In MS4 ?  | Y Acres: 10.166     |
| Site Priority: | High  |           |                     |
| Address:       | 8310 RICHFOOD ROAD                          |           |                     |
| Facility:      | Mechumps Creek PS                           | Fac#      | 67                  |
| GPIN           | 7880-20-8879                                | Facility: | Lift Station        |
| HUC Code:      | YO27  | In MS4 ?  | Y Acres: 0.036      |
| Site Priority: | High  |           |                     |
| Address:       | 101 SOUTH CARTER ROAD                       |           |                     |
| Facility:      | Pleasant Street Storage Tank & PS - HSWS    | Fac#      | 91                  |

|                |  |           |              |
|----------------|--|-----------|--------------|
| Facility:      | Pleasant Street Storage Tank & PS - HSWS | Fac#      | 91           |
| GPIN           | 7779-98-7815                             | Facility: | Water Tank   |
| HUC Code:      | YO27                                     | In MS4 ?  | Y            |
|                |  | Acres:    | 0.42         |
| Site Priority: | High                                     |           |              |
| Address:       | 751 SOUTH TAYLOR STREET                  |           |              |
| Facility:      | Presidential Business Center PS          | Fac#      | 80           |
| GPIN           | 7789-27-5417                             | Facility: | Pump Station |
| HUC Code:      | JL17                                     | In MS4 ?  | Y            |
|                |  | Acres:    | 0.057        |
| Site Priority: | High                                     |           |              |
| Address:       | 315 HILL CARTER PARKWAY                  |           |              |
| Facility:      | Pump Station                             | Fac#      | 77           |
| GPIN           | 8724-21-7535                             | Facility: | Pump Station |
| HUC Code:      | JL19                                     | In MS4 ?  | Y            |
|                |  | Acres:    | 0.345        |
| Site Priority: | High                                     |           |              |
| Address:       | 0  |           |              |
| Facility:      | Quarles Road Storage Tank & PS - HSWS    | Fac#      | 63           |
| GPIN           | 7880-25-8104                             | Facility: | Lift Station |
| HUC Code:      | YO27                                     | In MS4 ?  | Y            |
|                |  | Acres:    | 0.037        |
| Site Priority: | High                                     |           |              |
| Address:       | 305 QUARLES ROAD                         |           |              |
| GPIN           | 7880-25-7127                             | Facility: | Lift Station |
| HUC Code:      | YO27                                     | In MS4 ?  | Y            |
|                |  | Acres:    | 0.513        |
| Site Priority: | High                                     |           |              |
| Address:       | 303 QUARLES ROAD                         |           |              |
| Facility:      | Shelton Pointe PS                        | Fac#      | 83           |
| GPIN           | 8716-83-3495                             | Facility: | Pump Station |
| HUC Code:      | YO30                                     | In MS4 ?  | Y            |
|                |  | Acres:    | 0            |
| Site Priority: | High                                     |           |              |
| Address:       | 9167 SHELTON POINTE DRIVE                |           |              |
| Facility:      | Sledd Run PS #1                          | Fac#      | 56           |
| GPIN           | 8723-28-0975                             | Facility: | Lift Station |
| HUC Code:      | JL19                                     | In MS4 ?  | Y            |
|                |  | Acres:    | 0.091        |
| Site Priority: | High                                     |           |              |
| Address:       | 6460 FREEL TRACE                         |           |              |
| Facility:      | Smithtown PS                             | Fac#      | 66           |

|                |   |           |              |
|----------------|---|-----------|--------------|
| Facility:      | Smithtown PS                                | Fac#      | 66           |
| GPIN           | 7880-14-4138                                | Facility: | Lift Station |
| HUC Code:      | YO27  | In MS4 ?  | Y            |
|                |   | Acres:    | 0.184        |
| Site Priority: | High  |           |              |
| Address:       | 119 SMITHTOWN ROAD                          |           |              |
| Facility:      | Snead Street PS                             | Fac#      | 70           |
| GPIN           | 7870-51-2870                                | Facility: | Lift Station |
| HUC Code:      | JL17  | In MS4 ?  | Y            |
|                |   | Acres:    | 0.065        |
| Site Priority: | High  |           |              |
| Address:       | 229 THOMPSON STREET                         |           |              |
| Facility:      | South Center Street PS                      | Fac#      | 68           |
| GPIN           | 7779-67-2150                                | Facility: | Lift Station |
| HUC Code:      | JL17  | In MS4 ?  | Y            |
|                |   | Acres:    | 0.12         |
| Site Priority: | High  |           |              |
| Address:       | 1020 SOUTH CENTER STREET                    |           |              |
| Facility:      | Strawhorn Well, Storage Tank and PS - Rural | Fac#      | 99           |
| GPIN           | 8726-01-1516                                | Facility: | Well House   |
| HUC Code:      | YO30  | In MS4 ?  | Y            |
|                |   | Acres:    | 0            |
| Site Priority: | High  |           |              |
| Address:       | 6507 STRAWBANK DRIVE                        |           |              |

Contact: Public Works

Facility: Highpoint Farms PS#4 (in utilities DB) Fac# 121

GPIN 8724-11-2446

Facility: Stormwater Basin

HUC Code: JL19 In MS4 ? Y Acres: 2.886

Site Priority: High

Address: 7069 LYNK LANE

Facility: Mechanicsville Solid Waste Convenience Center Fac# 110

GPIN 8716-31-9690

Facility: Mechanicsville SWCC

HUC Code: YO30 In MS4 ? Y Acres: 32.5

Site Priority: High

Address: 7427 VERDI LANE

Facility: Richfood Road PS (in utilities DB) Fac# 122

GPIN 7795-77-3659

Facility: Stormwater Basin

HUC Code: JL17 In MS4 ? Y Acres: 0.4

Site Priority: High

Address: 8410 RICHFOOD ROAD

Contact: School Board

Facility: Cold Harbor ES Fac# 128

GPIN 8724-51-0804 Facility: Cold Harbor ES

HUC Code: JL19 In MS4 ? Y Acres: 25.095

Site Priority: High

Address: 6740 COLD HARBOR ROAD

Facility: John Gandy ES Fac# 132

GPIN 7870-95-1310 Facility: John Gandy ES

HUC Code: YO11 In MS4 ? Y Acres: 1.29

Site Priority: High

Address: 0

GPIN 7870-95-1005 Facility: John Gandy ES

HUC Code: YO11 In MS4 ? Y Acres: 1.29

Site Priority: High

Address: 0

Facility: Lee Davis HS Fac# 135

GPIN 8714-89-7325 Facility: Lee Davis HS

HUC Code: JL19 In MS4 ? Y Acres: 23.5

Site Priority: High

Address: 7052 MECHANICSVILLE TURNPIKE

Facility: Stonewall Jackson MS Fac# 144

GPIN 8715-81-6200 Facility: Stonewall Jackson MS

HUC Code: JL19 In MS4 ? Y Acres: 2.07

Site Priority: High

Address: 8035 OLD HICKORY DRIVE

**Nutrient Management Plan Locations**  
**Appendix A6**

## **Nutrient Management Plan Locations**

### **(Minimum Control Measure 6)**

#### **Requirement for Fertilizer Applicators under the County's MS4 Permit**

On July 1 the regulations for Municipal Separate Storm Sewer System Operators become effective. Under these regulations, operators are required to:

- Within 12 months of the effective date, identify all lands where nutrients are applied to contiguous areas greater than one acre.
- Within 60 months of the effective date, implement turf and landscape nutrient management plans on these areas
- These plans must be developed by a certified turf and landscape nutrient management planner
- The plans must be developed according to the a fairly prescriptive schedule (see timeframes in regulations below)

**Note:** Please keep in mind that as of February 1, 2013, only certified fertilizer applicators can apply fertilizer for the County. These applications must be tracked by zipcode. (see 4 VAC 405 for more information)

#### **Applicable Regulations**

##### **9 VAC 25-890-40 Sect II.B.6.c(1)(a)**

Within 12 months of state permit coverage, the operator shall identify all applicable lands where nutrients are applied to a contiguous area of more than one acre. A latitude and longitude shall be provided for each such piece of land and reported in the annual report.

##### **9 VAC 25-890-40 Sect II.B.6.c(1)(b)**

Within 60 months of state permit coverage, the operator shall implement turf and landscape nutrient management plans on all lands where nutrients are applied to a contiguous area of more than one acre. The following measurable outcomes are established for the implementation of turf and landscape nutrient management plans: (i) within 24 months of permit coverage, not less than 15% of all identified acres will be covered by turf and landscape nutrient management plans; (ii) within 36 months of permit coverage, not less than 40% of all identified acres will be covered by [turf and landscape] nutrient management plans; and (iii) within 48 months of permit coverage, not less than 75% of all identified acres will be covered by [turf and landscape] nutrient management plans. The operator shall not fail to meet the measurable goals for two consecutive years.

#### **Implementation**

On February 1, 2014, the County presented an annual report to VDACS with a summary of all fertilizer application performed by the County. Only two of the sites are within the 2000 urbanized area subject to MS4 requirements. Two more sites are within the 2010 urbanized area expansion. All of the subject sites are owned by the Hanover County School Board. Although only four school sites are subject to regulation under the MS4 requirements, there are

7 school sites that apply fertilizer in Hanover County and all sites where fertilizer is applied are over one acre. The Hanover County School Board has developed an Athletic Field Nutrient Management Plan prepared by a certified nutrient planner at this time. Although the Hanover County Parks department also applies fertilizer, none of the sites are within the MS4 area and therefore are not subject to MS4 requirements. Sites within the MS4 over 1 acre where nutrients are applied are as follows:

| <b>MS4 Sites Applying Fertilizer Over 1 Acre</b>                                   | <b>GPS Coordinates Latitude/Longitude (Deg° Min' Sec")</b> | <b>Acres</b> | <b>HUC</b> |
|--|--|--------------|------------|
| Lee Davis High School<br>7052 Mechanicsville Turnpike<br>Mechanicsville, VA 23111  | N 37° 36' 52.14"<br>W 77° 20' 20.22"                       | 6.28         | JL19       |
| Stonewall Jackson Middle School<br>8021 Lee Davis Road<br>Mechanicsville, VA 23111 | N 37° 37' 4.3"<br>W 77° 20' 27.19"                         | 2.08         | ML19       |

\* Note that Atlee HS and Chickahominy MS (MS4 2010) apply amounts of 9.37 acres and 1.56 acres of fertilizer, respectively.

**Training Schedule and Program**  
**Appendix A7**

## Training Schedule and Program

### (Minimum Control Measure 6)

#### Employee Training Requirements

The County's MS4 permit is required to include a training component with the goal of preventing or reducing pollutant runoff from municipal operations including such activities as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The County's training will review the County's established policies for responding to illicit discharge, materials management, vehicle washing, construction management, and new policies required in Section II B 6 a of the MS4 General Permit (e.g. parking lot and equipment maintenance, fertilizer application etc.).

Applicable Employees:

Departments of Parks and Recreation, Fleet Management, Facilities Management, Public Works, Fire and Emergency Services, Communications, Purchasing, Community Services Board, Public Utilities, School Board, and County Attorney's Office

*(1) The operator shall provide biennial training to applicable field personnel in the recognition and reporting of illicit discharges.*

- Presentation covering recognition and reporting of illicit discharges. (Year 3)
- Staff can review/sign off the County's *Illicit Discharge Guidance Document & Field Screening Procedures* (Year 5)
- Applicable Documents:
  - Illicit Discharge Tracking and Response, March 2006
  - Hanover County Illicit Discharge Guidance Document, May 2012

*(2) The operator shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed during road, street, and parking lot maintenance.*

- Presentation covering pollution prevention for parking lot maintenance. (Year 3)
- Review with staff/ sign off the *Parking Lot Maintenance SOP & Car Washing Guidance* (Year 5)
- VDOT is responsible for road and street maintenance
- Applicable Documents:
  - Informational Bulletin No. 6 Vehicle Washing Guidance Document

*(3) The operator shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around maintenance and public works facilities.*

- Presentation covering pollution prevention around maintenance and public works facilities. (Year 3)

- Include discussion of requirement for facilities with potential to pollute to have SWPPP plans. *Mechanicsville Solid Waste Convenience Center SWPPP* is required to contain procedures designed to reduce and prevent pollutant discharge (Years 3 and 5)
- Review with staff/ sign off the pollution prevention plan (Year 5)

(4) *The operator shall ensure that employees, and require that contractors, who apply pesticides and herbicides are properly trained or certified in accordance with the Virginia Pesticide Control Act (§ 3.2-3900 et seq. of the Code of Virginia).*

- Verify pesticide operators are certified through the Virginia Department of Agriculture and Consumer Services (VDACS)
- VDACS website contains list of certified applicators.  
<http://www.vdacs.virginia.gov/pesticides/>

(5) *The operator shall ensure that employees and contractors serving as plan reviewers, inspectors, program administrators, and construction site operators obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations.*

- New applicable staff will obtain certification as soon as possible.
- Staff keep their E&S certifications current
- Staff will re-new their certification every 3 years
- Contractors serving as construction site operators will have current E&S certification

(6) *The operator shall ensure that applicable employees obtain the appropriate certifications as required under the Virginia Erosion and Sediment Control Law and its attendant regulations.*

- All personnel involved in sediment and erosion control plan review, inspections and program administration will be appropriately certified.

(7) *The operators shall provide biennial training to applicable employees in good housekeeping and pollution prevention practices that are to be employed in and around recreational facilities.*

- Detailed training on pollution prevention around recreational facilities. (Year 3)
- Review with staff/ sign off the pollution prevention plan (Y 5)

(8) *The appropriate emergency response employees shall have training in spill responses. A summary of the training or certification program provided to emergency response employees shall be included in the first annual report.*

- Summary of spill response training program

In Hanover County, all first responders are trained in hazardous materials response and take the following initial training:

**Hazardous Materials First Responder - Operations/32 Hours**

Available through: VDEM, VDFP

This course is designed for individuals who must respond to a release of hazardous materials and perform defensive operations. The program includes information taught in the HMFR Awareness course. The course is designed to meet the recommendations of

NFPA 472 and OSHA 1910.120 (q)(6)(ii). The course teaches first responders incident stabilization techniques such as incident profiling, hazardous materials behavior modeling, incident planning and the Incident Command System. In addition to incident stabilization techniques, first responders learn defensive tactical control skills including damming, diking, diversion and retention of products, and decontamination of personnel.

**Recertification:** Students must recertify/demonstrate competencies at this level annually or complete the Hazardous Materials Incident Management or Hazardous Materials Technician course.

First responders conduct annual spill response hands on training drills.

*(9) The operator shall keep documentation on each training event including the training date, the number of employees attending the training, and the objective of the training event for a period of three years after each training event.*

- Create spreadsheet for record keeping or update existing one
- Track training activities

## **Pollutant Discharge Prevention**

### **Road, street and parking lot maintenance**

Road and parking lot maintenance, including pothole repair, pavement marking, sealing, and re-paving ...sweeping

VDOT owns the public right of way and is responsible for road and street maintenance in Hanover County. These procedures will be for activities performed on Hanover County owned parking areas and travel ways.

- Paving activities will be conducted only on dry days
- Asphalt and other materials for paving or pavement marking activities will be unloaded in areas away from storm sewer inlets
- Storm sewer inlets will be blocked if there is potential for any paving, pavement marking, grinding or cleaning materials from reaching inlets. Any accumulated materials resulting from blocking inlets will be properly disposed
- If concrete work is performed, a concrete washout area with appropriate signage will be located away from any storm sewer inlets
- Any sweeping from parking lot cleaning activities must be disposed
- Sweep paved areas when necessary
- Pick up trash regularly
- Dispose of any waste generated through sweeping and trash pickup in the normal trash

### **Equipment maintenance**

- Prevent pollutant discharge from leaking automobiles and equipment
- Regularly maintain and inspect equipment for service problems. Properly maintaining equipment will help to avoid leaking fluids. When performing maintenance make sure to dispose the used liquids at the proper facility.
- Equipment maintenance will be performed in enclosed areas intended for that purpose, eliminating the potential to discharge materials to the storm sewer system. In the event of a spill indoors, absorbent materials will be available to facilitate clean up. Clean up materials will be disposed of properly.
- If equipment is leaking, prior to repair, drip pans will be placed under the leak and repair will be completed as soon as possible. Drip pans will not be used long term due to the potential to discharge during rain events. Leaky vehicles will be stored under cover if they are stored for more than a day or two prior to repair.
- Any spills or leaks should be cleaned up immediately, with dry methods. Clean up materials must be disposed of properly. Stock spill response materials in case a spill or leak occurs.

### **The application, storage, transport, and disposal of pesticides, herbicides, and fertilizers**

In most cases pesticides and herbicides will not be used by Hanover County. If pesticides or herbicides must be used, departments should consider engaging a qualified company to manage the application of these materials.

- Application
  - Avoid applying on impervious surfaces

- Do not apply in windy conditions
- Schedule application for dry weather.
- Do not apply to eroding soil
- Do not apply near surface waters or wells
- Group application sites in order to minimize waste of products between jobs
- Apply according to manufacturer's recommendations
- Storage
  - Minimize pollutant in stormwater runoff from bulk storage areas
  - Inspect containment areas regularly
  - Store materials in their original packaging
  - Store materials indoors and in areas that are not subject to the effects of rainfall and stormwater runoff
  - Store materials according to ***Hanover County's Materials Management Policy***
- Transport
  - Materials will be loaded, unloaded and transferred in areas away from storm sewer inlets
  - In most cases Hanover County will not use pesticides or herbicides. If pesticides or herbicides are to be used, they will only be transported in quantities less than those allowed under applicable materials of trade (MOT) exemptions under DOT requirements. Typically, pesticides designed for home use will meet these exemptions. MOT exemptions are summarized in Appendix 1 of this document.
- Disposal
  - Use the materials for their intended purpose and avoid disposal
  - Any container containing a pesticide or herbicide should be triple rinsed while in the process of mixing the batch of material. The rinsed container can then be disposed in the regular trash.
  - If products must be disposed for any reason consult the manufacturer for recycling alternatives and the MSDS for proper disposal options

#### Disposal of Waste Materials Including Landcape Waste

Landscaping wastes, debris wastes and land clearing wastes such as trees, brush, grass and clean woody materials are recycled into mulch and compost by Hanover County. These materials will be taken to an appropriate processing site at one of six convenience centers to be recycled.

#### Municipal Vehicle Wash Water

Municipal vehicles will be washed according to the ***Hanover County Vehicle Washing Guidance Document***, Informational Bulletin #6. No discharge to the MS4 is permitted.

Prevent Wastewater Discharge without Appropriate VPDES permit

Pumped Water from Utility Construction and Maintenance

Dewatering of groundwater or rainwater infiltration of trenches during construction will be consistent with erosion and sediment control regulations.

**Good Housekeeping Policies  
Supporting Materials**

## **Illicit Discharge Tracking and Response**

March 29, 2006

### Background

Dumping materials into storm drains and surface water bodies is not allowed under Virginia Law. In Hanover County, unauthorized dumping or the accidental spilling of materials must be reported to the Hanover County Department of Public Works (DPW) and the contamination must be cleaned up. This document provides Hanover County's procedures for responding to observations and reports of illicit discharges.

### Definitions

According to 4 VAC 50-60 MS4 Program Regulations

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, except discharges pursuant to a VPDES or VSMP permit (other than the VSMP permit for discharges from the municipal separate storm sewer), discharges resulting from fire fighting activities, and discharges identified by and in compliance with 4VAC50-60-1220 C 2.

For the purposes of this document the discharge of materials including dumping, spilling or the cleaning of equipment (e.g. concrete trucks, hydro-seeders, asphalt equipment) or the dumping of left over products such as paint, solvents, cleaners and other materials will be reported in the following manner.

### Reporting an Illicit Discharge Incident

To report an illicit discharge that constitutes an emergency situation or that occurs after regular business hours, or on weekends or holidays, contact emergency response officials by dialing 911. During regular business hours, non-emergency reports of illicit discharge can be made to the DPW. Upon receiving a report of an illicit discharge or spill:

- 1) Obtain the following information:
  - Location/street address of the incident
  - When the incident occurred including time and date
  - Material involved/description of incident
  - Water body or storm drain involved
  - Company involved description of individuals or vehicles involved
  
  - Person reporting the incident - Name and contact information
- 2) Contact the Hanover Fire Marshall and DEQ
  - For Emergency situations - (911) – Dangerous chemical or petroleum spills
  - Non-emergency situations - Hanover County Fire Marshall at 365-4850 - Spills or other discharge
  
  - General questions for the Hanover County Fire Marshall's Office contact Lt. Andy Aigner 537-6195 (Radio FM-5)

- Also report spills or unauthorized discharges to the Virginia Department of Environmental Quality DEQ at 804-527-5042 (pollution response for DEQ Piedmont Regional Office)
- 3) Site Visit  
For non emergency situations, make arrangements to visit the site with the fire marshal and the pollution response representative for the DEQ Piedmont Regional Office
  - 4) Illicit discharge incident tracking  
Log the incident and the associated pictures on a standard drainage complaint form and submit the form to Randy Hardman for follow-up and tracking.  
  
Include any recommended actions and summarize the actions undertaken by emergency responders such as the Fire Marshall's office on the drainage complaint form.

#### Follow-up Actions

- 1) Legal Action  
Criminal violations of Hanover County Ordinances or State law for discharge to surface waters are the purview of the Hanover County Fire Marshall's office.  
  
Violations of Hanover County Ordinances prohibiting illicit discharge are the responsibility of the DPW and the Office of the Hanover County Attorney.
- 2) Hanover County agencies such as the Sheriff's Department, and Fire or Emergency Response agencies that receive reports of illicit discharge or that respond to emergency situations that involve spills or other illicit discharge must report these incidents to the DPW. Hanover County's Municipal Separate Storm Sewer System (MS4) permit requires Hanover County to track and report illicit discharge incidents in an annual report to the Department of Conservation and Recreation (DCR.)  
  
Aside from tracking and reporting illicit discharge incidents, Hanover County is required to document the County's response to each incident including the actions taken by the County including cleanup and legal action associated with the illicit discharge. The DPW and Hanover County Emergency response agencies will share information regarding illicit discharge incidents in order to meet the requirements of the County's permit with DCR.  
  
Other County agencies can report illicit discharge to DPW at 365-6181.

## **Hanover County Illicit Discharge Guidance Document**

### **MS4 Permit Requirements**

#### **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.*

### **This Guidance Document**

This guidance document defines what an illicit discharge is, outlines illicit discharge reporting procedures, and outlines strategies to prevent illicit discharges.

### **Definition of Illicit Discharge**

*Illicit discharge* means any discharge to a storm sewer that is not composed entirely of stormwater, except discharges pursuant to a VSMP permit or other state permit, discharges resulting from firefighting activities, and discharges identified in applicable state regulations as not being significant contributors of pollutants.

### **Reporting an Illicit Discharge**

#### **Emergency situations requiring immediate assistance:**

Report emergency situations by dialing 911. The following information should be reported if available:

- 1) The nature of the emergency situation, such as immediate danger to persons, property or the environment;
- 2) The type of material that was spilled;
- 3) The quantity of material that was spilled;
- 4) Any other conditions that responders should be aware of to appropriately respond to the situation such as injuries or hazards associated with the spilled material;
- 5) The location of the discharge;
- 6) A contact person and a contact phone number, if available, at the site.

#### **Non-Emergency Situations:**

Non-emergency situations should be controlled and cleaned up as appropriate by the responsible County department. After the situation is controlled, the illicit discharge should be reported to the Hanover County Department of Public Works during normal business hours at (804)365-6181. The following information should be reported to the Department of Public Works:

- 1) The type of material involved with the illicit discharge;
- 2) The quantity of material involved with the illicit discharge;
- 3) The location of the illicit discharge;
- 4) The date of the illicit discharge;
- 5) A contact person and a contact phone number if additional information is required.

Discharges of hazardous materials, hazardous wastes and petroleum products should also be reported to the Hanover County Fire Marshall at (804)365-6195.

### **Illicit Discharge Prevention**

The potential for illicit discharges to enter surface waters or storm sewer systems can be minimized by identifying the areas of a facility that may be prone to illicit discharges, identifying the potential flow paths from these areas, implementing appropriate proactive procedures, and having spill control and remediation equipment, and clean-up procedures appropriate for the types of discharges that could potentially occur.

#### **Vehicle Washing**

Vehicles should be washed in a manner preventing discharge of pollutants to the storm sewer system or to a surface water. Vehicle washing will be in accordance with the County's Informational Bulletin 6, Vehicle Washing Guidelines dated September 14, 2009 (*attached*).

#### **Spill Prevention**

For facilities with Spill Control, Containment and Countermeasure (SPCC) or Stormwater Pollution Prevention Plans (SWPPP) comply with the site specific requirements of the SPCC or SWPPP.

For sites with specific operating procedures addressing spills follow the specific operating procedures.

General Procedures for minimizing the potential for spills and leaks to cause and illicit discharge applicable to all facilities are as follows:

- Conduct maintenance work where fluids may be spilled in a contained area or with containment pans so any spilled fluids will be contained.
- Parked vehicles should be monitored for leaks. Pans should be placed under any leaking vehicles to collect the leaking fluid for proper disposal until the equipment can be repaired.
- Provide appropriate waste storage facilities for all used/waste fluids requiring special handling expected to be generated at a facility.
- Do not pour liquid waste down toilets or sinks unless disposal of the liquid in a sanitary sewer or septic system is appropriate.
- Do not pour liquid waste down floor drains or storm drain inlets under any condition.

- Use drain mats or other available materials to cover drains in the event of a spill to prevent or minimize the amount of material entering the drain.
- Follow manufacturer's recommendations for disposal and clean-up of fluids.

### Spill Clean-up

- If safe to do so and properly trained, take appropriate measures to contain the spill to the smallest area possible.
- If safe to do so and properly trained, prevent spilled fluids from entering drains, creeks and waterways.
- Determine what material has been spilled so that proper clean-up procedures can be implemented.
- Only clean-up a spill if properly trained. Specialty contractors may be required to respond depending on the nature of the spill. Fire/EMS personnel should be consulted if proper clean-up procedures are unknown by the person/department discovering the spill.
- Wear appropriate personal protective equipment when cleaning a spill.
- Use dry methods to clean up spills and leaks whenever possible.
- If water must be used, use as little water as possible. Depending on the nature of the spill, the water utilized in clean-up may have to be absorbed and handled as a special waste material.
- Properly dispose of all materials cleaned up and all materials utilized to clean-up the spill. Depending on the nature of the spilled material, special handling of the used clean-up materials may be required.

### General Clean-up:

- Soap, water and a mop can be used for general cleanup. Mop water from general clean-up should be disposed of in a sink or toilet for treatment at a wastewater treatment plant or septic system and not dumped outside where it can become an illicit discharge.



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## **Vehicle Washing Guidance Document**

### **Informational Bulletin No. 6**

### **Phase II (MS4) Stormwater Program**

### **Hanover County, Virginia**

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Water from vehicle washing can make its way across a hard surfaced parking lot and enter the storm drainage system. From there, wash water may enter our creeks and rivers potentially harming fish and other aquatic life. Water from vehicle washing may contain contaminants such as nutrients and hydrocarbons and should not discharge to the storm drainage system, creeks or streams.

#### **Areas for Vehicle Washing**

The following are recommendations for vehicle washing:

- Use a commercial car wash where wastewater is properly treated.
- Wash vehicles in an area designed for vehicle washing where the water is discharged to the sanitary sewer system for treatment.
- If vehicle washing will be done outside, designate an area for on-site vehicle washing that discharges to gravel, grass, or other permeable surfaces allowing no discharge of washwater from the site.
- Use hoses with nozzles that automatically turn off when left unattended.
- Spills should be immediately contained and treated.

#### **Cleaning Products**

- Use products labeled “non-toxic,” “phosphate free,” and “biodegradable.” These products can be purchased at most large retail outlets. Note that even biodegradable and nontoxic soaps can be harmful to aquatic life and water quality, and must be kept out of the storm drain system.
- Do not use acid-based wheel cleaners or engine degreasers unless the waste can be properly disposed of.
- Reduce the amount of soap used by using a bucket of soapy water to re-soap rags or sponges rather than adding more soap directly to rags or sponges.

#### **Private Vehicles**

- Private vehicles may not be washed on county property.

## Hanover County Materials Management Guidance Document

### MS4 Permit Requirement:

#### 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.*

### Guidance:

This guidance addresses the management of solid and granular materials that are soluble and/or erodible, and liquid materials. Appropriate management of common materials such as fertilizers, solvents, paints, cleaners, and automotive products, can reduce the potential for polluted runoff. Proper materials management entails the selection of the individual product, the correct use and storage of the product, and the responsible disposal of associated waste(s).

#### Material Storage - General

- Materials should be stored and managed in accordance with the manufacturer's instructions.
- If several different materials are stored together, steps should be taken to insure that the mixed materials are compatible for storage. A product's MSD sheet can be consulted for guidance on storage, compatibility, reactivity and stability.

Liquid Storage not requiring special plans (e.g. Spill Prevention Control and Countermeasures for Petroleum Products) and Solid and Granular Material Storage will be:

- Stored inside where possible. When it is not possible to store materials inside, they should be stored in a covered area with sufficient overhanging cover to prevent rainfall from normally coming in contact with the stored material or be stored under weather resistant covers or tarps, on a solid surface, such as asphalt or concrete, or a raised surface, such as a pallet. Cover tarps should be weather resistant and secured.
- Outside storage areas should be located in areas not normally subject to concentrated run-off such as ditches, swales, or other stormwater conveyance structures, not normally subject to flooding, and should not be located in areas where run-off from a roof, roof downspout, or other overhead structure can come in contact with the stored material.

Liquid Material Storage – requiring Spill Prevention Control and Countermeasures (SPCC) or other Plans must be managed in accordance with the provisions of the applicable plans.

### Spill Material Clean-up

- Only clean-up a spill if properly trained to clean it up. Contact your supervisor if you are uncertain how to clean-up a spill.
- In an emergency, call 911 to request assistance with cleaning up a spill.
- Always wear appropriate personal protective equipment.
- In general, when provided, follow manufacturer instructions when cleaning up a spill.
- In general, spills involving dry or solid materials should be cleaned up immediately by dry sweeping or shoveling. Whenever possible recovered materials should be used for the original purpose intended. If this is not possible, they should be properly disposed of. All contaminated cleaning equipment, clothes, and absorbent materials should be properly treated and/or disposed of.
- Liquid spills should be cleaned up immediately. Typically large amounts of liquid materials are cleaned by pumping to a new container and using absorbent materials to remove whatever liquid remains. Small spills may be cleaned up by the use of absorbent materials only. Whenever possible recovered materials should be used for the original purpose intended. If this is not possible, recovered materials should be properly disposed of. All contaminated cleaning equipment, clothes, and absorbent materials should be properly treated and/or disposed of.

### Waste Management

- Materials should be fully utilized whenever possible to minimize the amount of waste generated.
- Manage empty or partially full empty containers and any waste materials according to manufacturer's instructions or county policies, whichever is more stringent.
- Special wastes such as aerosols, batteries, fluorescent light bulbs, car batteries, oil, oil filters, antifreeze, absorbents, button batteries, and paint should be managed in accordance with Hanover County's "Environmental Compliance Plan for Universal Wastes and Exempt Small Quantities" dated September 14, 2009. (*attached*)

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COLD HARBOR DISTRICT



*HANOVER COURTHOUSE*

**HANOVER COUNTY**

ESTABLISHED IN 1720

September 14, 2009

**COUNTY ADMINISTRATOR'S OFFICE**

**CECIL R. HARRIS, JR.**  
COUNTY ADMINISTRATOR

**JOHN H. HODGES**  
DEPUTY COUNTY ADMINISTRATOR

**JOSEPH P. CASEY**  
DEPUTY COUNTY ADMINISTRATOR

**MARILYN J. BLAKE**  
ASSISTANT COUNTY ADMINISTRATOR

P.O. BOX 470, HANOVER, VA 23069  
WWW.CO.HANOVER.VA.US

PHONE: 804-365-6005  
FAX: 804-365-6234

**Hanover Employees:**

Hanover County is responsible for complying with environmental regulations and mandates from both the State and Federal governments. Various County agencies are working diligently to respond to these directives. In addition, each County employee has a role in helping the County achieve its environmental goals.

Currently, we are addressing regulations regarding special wastes. Special wastes are any waste material which, because of its physical characteristics, chemical makeup or biological nature, requires either special handling procedures, permitting, or poses an unusual threat to human health, equipment, property, or the environment.

One of the roles of each employee is to simply be aware of the chemicals and potential special wastes that are located in your department and how to properly store, maintain and dispose of these wastes. Although you may think of these wastes as normal household products, they must be handled as special waste by the County. It is imperative that waste be disposed of properly and not allowed to accumulate in an unapproved area. Purchases of materials that are hazardous in nature should be limited. Material Safety Data Sheets (MSDS) must be kept on file in the office on all hazardous chemicals.

In addition to awareness, because we are employees of Hanover County, it is all of our responsibility to ensure the County is following applicable regulations and that we do our part to ensure compliance. Some of these procedures may affect you and others not. Be sure to review all the special waste programs available. These guidelines, along with the assistance of every employee, will ensure our local government's response is appropriate and adequate by today's standards.

If you have any questions or needs, please contact the Department of Public Works at ext. 6181. I hope the attached special waste form and FAQ's will be useful in identifying special wastes and the proper disposal of these wastes.

In closing, I want to thank every County employee for your role in our environmental stewardship and compliance efforts.

Sincerely,

  
Cecil R. Harris, Jr.  
County Administrator

CRHJr/dkc

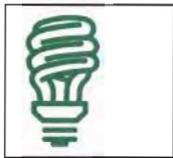
Enclosures

# Environmental Compliance Plan for Universal Wastes and Exempt Small Quantities

## Disposal of Aerosols



- In most instances, unspent aerosol products will be classified as hazardous waste due to the remaining or flammable residual propellant in the can. Departments should contract Facilities Management for a disposal location as the need arises for “in process”. (In process simply means that the employee that used the aerosol, will dispose of it promptly after all has been used, not collect any other employees’ cans, and not accumulate the special waste.)
- Agencies will work to reduce/eliminate the use of aerosols where ever practical and can purchase pump sprays or sprays with a non-flammable property as an alternative.
- All other Flammable aerosols, which are considered hazardous wastes (most products) due to the residue remaining in the container, **must have the spray cap removed and the spray stem covered with tape.**



## Tube Fluorescent and Other Light Bulbs

- Tubes and compact fluorescent bulbs are “Universal Wastes” and will be collected by Facilities Management from all County facilities.



## Recycling of Car Batteries, Oil, Oil Filters, Oil rags, Antifreeze and Absorbent

- Fleet Services will continue to manage these “Universal Wastes”. It is not anticipated that other agencies will generate these waste materials. However, Fleet Services and DPW 301 Transfer Station are available if occasional materials of this class are generated.



## Rechargeable Batteries and Button Batteries

- **Batteries must have terminal points covered with electrical tape prior to placement in the recycling container.**
- Facilities Management will provide a central location for rechargeable batteries and button batteries recycling. Fleet Services will also have a location for rechargeable batteries. There will be an additional button battery recycling location at the reception desk in the Administration Building.
- Small quantities can be sent to Facilities through interoffice mail.
- Rechargeable “Lithium Ion” batteries are recyclable and are part of the special waste program. “Lithium” batteries, (frequently used in cameras) are not recyclable and should be disposed of as trash.
- Alkaline batteries may be disposed of as trash.



## E-Waste Recycling

- E-waste associated with computers will be managed by the Information Technology Department (ITD) and the Public Works Department.
- Other electronic waste (anything with a plug) can be delivered by County agencies to the DPW 301 Transfer Station for recycling.



## Paints

- Unless approved by the Department Head, no oil based paints will be used by County personnel.
- If contractors use oil based paints, they will be required to remove any left-over paint containers.
- Latex paints can be dried and placed in normal trash. The Public Works Department can provide drying agents if needed.

## Frequently Asked Questions Special Waste

1. What is Special Waste?

*Special Waste is defined as any waste material which because of its physical characteristics, chemical makeup, or biological nature requires either special handling procedures, permitting or poses an unusual threat to human health, equipment, property or the environment. Some example of special waste include oil based paints and flammable aerosols.*

2. What is Universal Waste?

*Universal Wastes include items like rechargeable and button batteries, mercury containing equipment such as bulbs (lamps), car batteries, oil, oil filters, antifreeze, and electronic waste items. Regulations on universal wastes reduce the quantity of these wastes going to the landfills or combustors. In addition the regulations ensure that the wastes will go to the appropriate recycling facilities.*

3. Why do I have to be involved?

*As an employee of Hanover County it is part of our responsibility to assist in complying with environmental regulations and mandates issued from state and federal governments.*

4. How can you find out if a material is hazardous waste?

*If you look on the product label, materials that include statements like "flammable" or "explosion hazard" are potentially hazardous. If these products are in aerosol cans then the empty can becomes a hazardous waste (in the commercial or business environment) and should be disposed of accordingly. As a home owner or residential user of that chemical in many instances it is exempt from hazardous waste disposal requirements, but not at work.*

5. Where in the office can I find information on potential hazardous waste?

*As part of the special waste requirement, all departments will have Material Safety Data Sheets (MSDS) on file in the office. You can look for a specific item in the file to find information on ingredients in the product, stability and reactivity of the product and special handling and storage procedures, and first aid to name a few. If you have a product in the office that does not have an MSDS sheet on file, one should be put in there immediately.*

6. Are MSDS's required for all chemicals, even the bottle of hand sanitizer I have on my desk?

*Material Safety Data Sheets are required for all hazardous chemicals. A hazardous chemical is any chemical that is a physical or health hazard. If the chemical has a precautionary statement on the container it is a hazardous chemical. An exception applies to MSDS's, as they are not required for chemicals that can be purchased by the general public in a quantity that would typically be used in the home. For example, a bottle of Windex to occasionally clean an office window does not require an MSDS but a case of Windex to be used by an employee whose job it is to clean windows would require an MSDS. Additionally, if a hazardous chemical is not available to the general public and has to be ordered through a chemical supplier it requires an MSDS regardless of the quantity. You must still dispose of an empty aerosol can appropriately if it is considered hazardous waste even if it did not require an MSDS. Lastly, MSDS's, if required, must be maintained for 30 years and be readily available.*

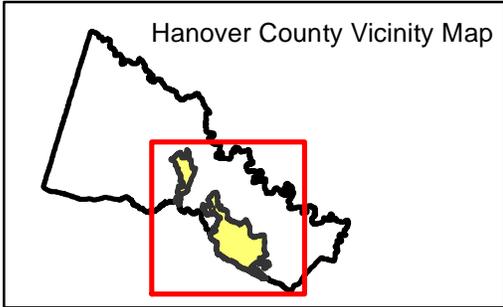
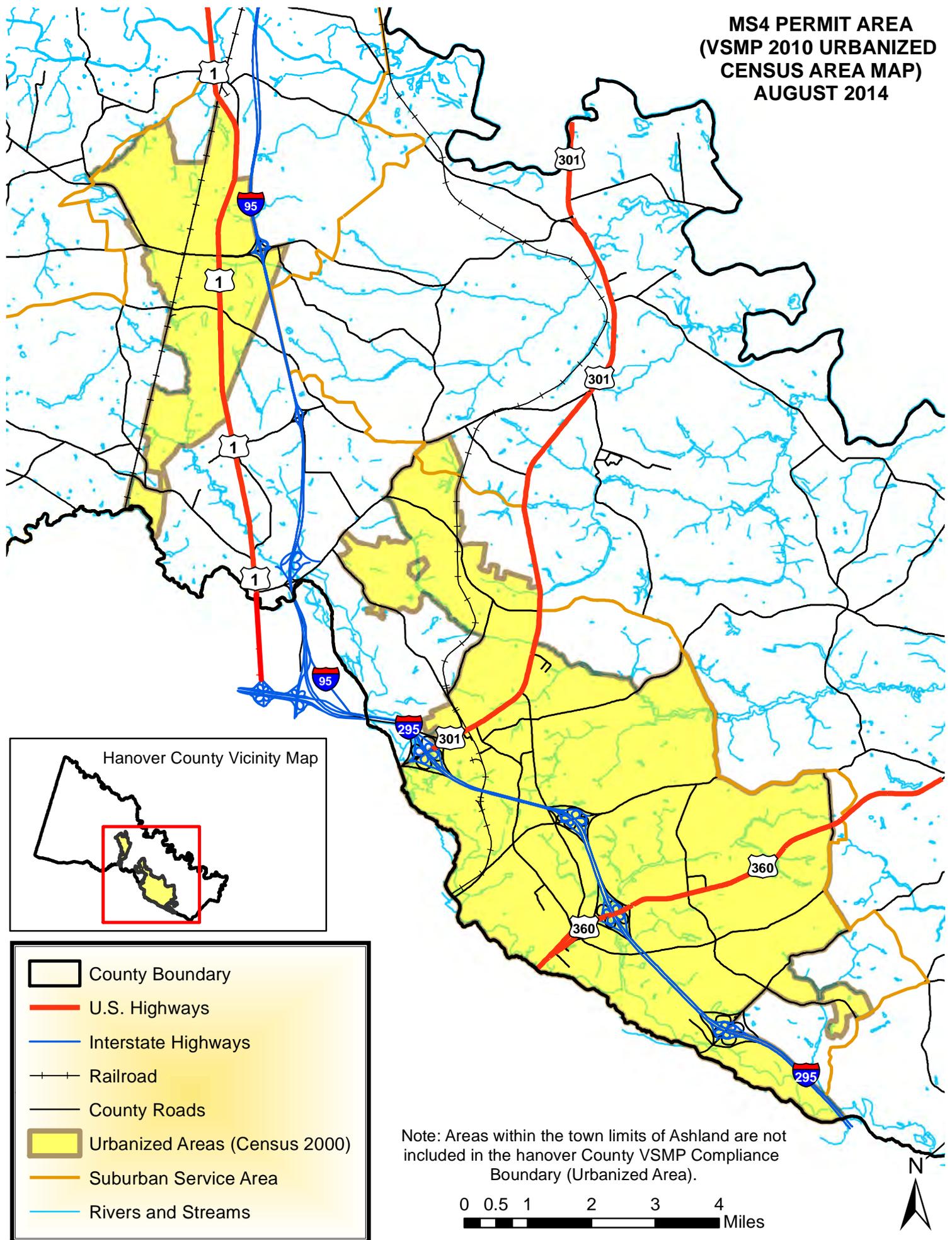
7. I keep Static Guard in my desk, is this considered hazardous waste?

*Items brought to work, like static guard, are considered personal use items and should be disposed of as personal items.*

8. What happens if my department is not following the guidelines?  
*If the County is found to be non-compliant with Special Waste regulations, the County could be subject to sanctions and fines. Individuals may also be liable for their actions under these rules.*
9. What can I do to reduce special wastes?  
*To reduce special wastes consider purchasing pump sprays instead of aerosols, items that are non-flammable, water based paints instead of oil based paints and other natural products.*
10. Who can I contact if I have more questions?  
*You can contact Steve Chidsey, Chief of Public Works Operations at 365-6181.*

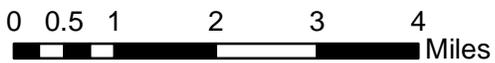
## **Appendix B - VSMP 2000 & 2010 Urbanized Census Area Maps**

**MS4 PERMIT AREA  
(VSMP 2010 URBANIZED  
CENSUS AREA MAP)  
AUGUST 2014**

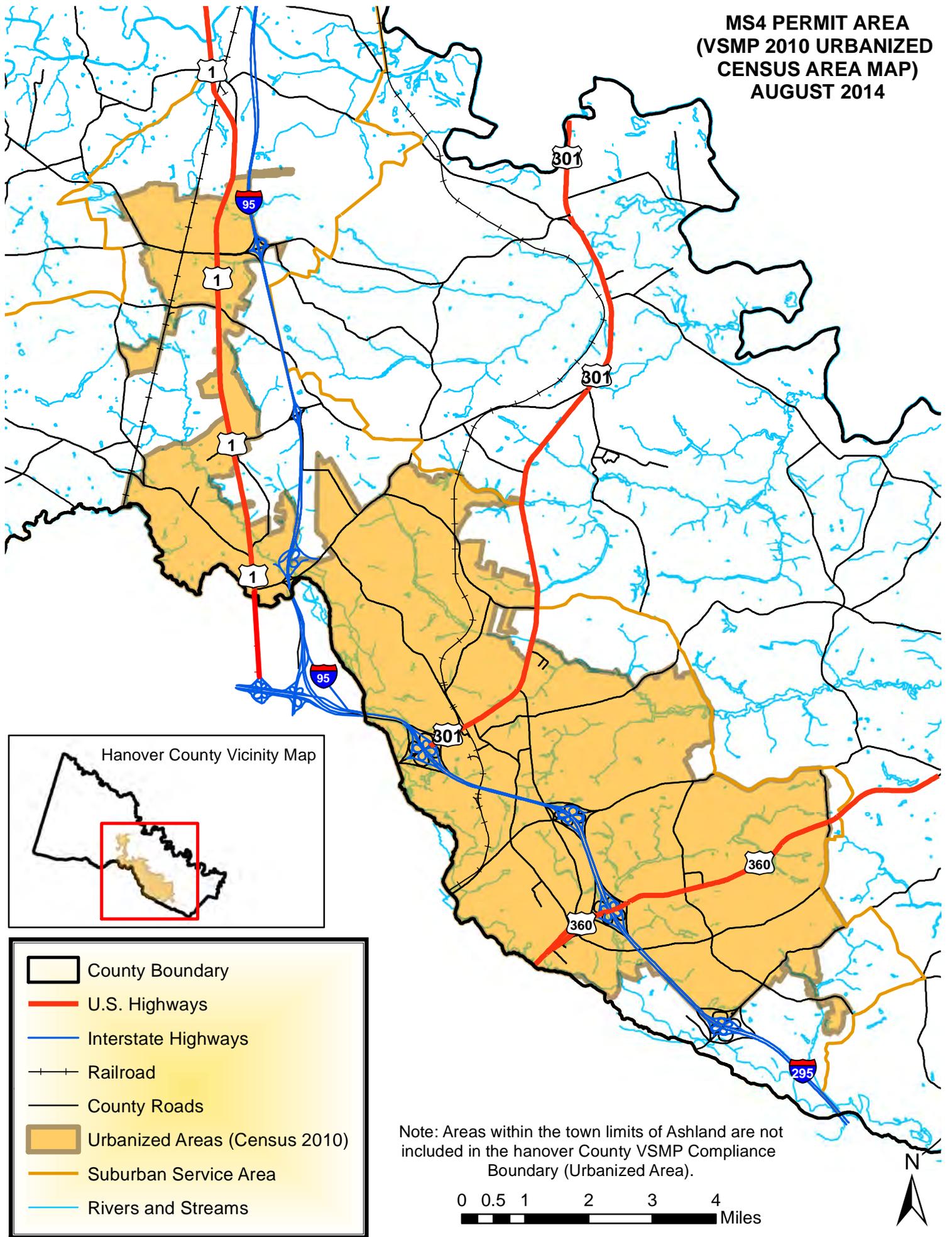


-  County Boundary
-  U.S. Highways
-  Interstate Highways
-  Railroad
-  County Roads
-  Urbanized Areas (Census 2000)
-  Suburban Service Area
-  Rivers and Streams

Note: Areas within the town limits of Ashland are not included in the hanover County VSMP Compliance Boundary (Urbanized Area).



**MS4 PERMIT AREA  
(VSMP 2010 URBANIZED  
CENSUS AREA MAP)  
AUGUST 2014**



Note: Areas within the town limits of Ashland are not included in the hanover County VSMP Compliance Boundary (Urbanized Area).

0 0.5 1 2 3 4 Miles

## **Appendix C - Development Community Meeting Agenda**

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COUNTY ADMINISTRATOR



HANOVER  
COURTHOUSE  
SE

## PLANNING DEPARTMENT

DAVID P. MALONEY, AICP  
DIRECTOR OF PLANNING

JOHN A. BENDER  
DEPUTY DIRECTOR OF PLANNING

J. KEITH THOMPSON  
PRINCIPAL PLANNER

LEE W. GARMAN, AICP  
PRINCIPAL PLANNER

MARY B. PENNOCK  
PRINCIPAL PLANNER

## HANOVER COUNTY

ESTABLISHED IN 1720  
[WWW.HANOVERCOUNTY.GOV](http://WWW.HANOVERCOUNTY.GOV)

P. O. Box 470  
HANOVER, VIRGINIA 23069

PHONE 804-365-6171  
FAX: 804-365-6232

### MEMORANDUM

TO: Commercial and Development Review Staff

FROM: John Bender, Deputy Director of Planning

DATE: March 19, 2014

RE: **Quarterly Meeting**

The quarterly meeting will be held in the *TRANE* Company offices at 10408 Lakeridge Parkway, Suite 100, in Crescent Business Center (see attached map) from **11:30 a.m. to 1:00 p.m. on Friday April 18, 2014**. The purpose of this meeting is to continue the series of seminars for the engineering and development community. **PLEASE NOTE THE START TIME FOR THIS ONE MEETING DATE IS 11:30 A.M., AS LUNCH WILL BE SERVED.**

The topics to be covered at this session are:

- **Legislative Session Update** (Dennis Walter, Sr. Assistant County Attorney)
- **Updates on New Requirements for Including Constructability Items on Plans** (Mike Nannery, Engineering Manager, Public Utilities)
- **VSMP Implementation in the Town of Ashland** (Timmons)
- **New Stormwater Program** (Mike Flagg, Director of DPW)
  - **Project Inspections – What’s changing?**
  - **Design Criteria – Grandfathering**
  - **Channel Design Criteria**
- **Updates and Miscellaneous Matters:**
  - **Subdivision Street Sign Standards/Requirements Reminder**

Please let Betty Gray know if you plan to attend by 4:30 p.m. on Friday April 11, 2014. Mrs. Gray may be contacted at 365-6171 or by e-mail to [bsgray@hanovercounty.gov](mailto:bsgray@hanovercounty.gov). In case of inclement weather, if County Offices are closed, this meeting will be cancelled and rescheduled.

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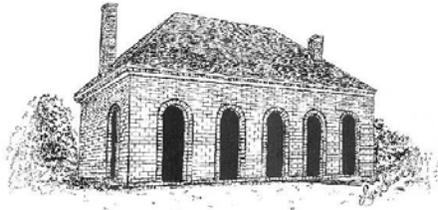
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HANOVER COURTHOUSE

## HANOVER COUNTY

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## PLANNING DEPARTMENT

DAVID P. MALONEY, AICP  
DIRECTOR OF PLANNING

JOHN A. BENDER  
DEPUTY DIRECTOR OF PLANNING

J. KEITH THOMPSON  
PRINCIPAL PLANNER

LEE W. GARMAN, AICP  
PRINCIPAL PLANNER

MARY B. PENNOCK  
PRINCIPAL PLANNER

P. O. Box 470  
HANOVER, VIRGINIA 23069

PHONE 804-365-6171  
FAX: 804-365-6232

### MEMORANDUM

TO: Commercial and Development Review Staff

FROM: John Bender, Deputy Director of Planning

DATE: September 5, 2013

RE: **Quarterly Meeting**

The quarterly meeting will be held in the *TRANE* Company offices at 10408 Lakeridge Parkway, Suite 100, in Crescent Business Center (see attached map) from **11:30 a.m. to 1:00 p.m. on Friday September 27, 2013.** The purpose of this meeting is to continue the series of seminars for the engineering and development community. **PLEASE NOTE THE START TIME FOR THIS ONE MEETING DATE IS 11:30 A.M., AS LUNCH WILL BE SERVED.**

The topics to be covered at this session are:

- **New Stormwater Management Ordinance** (Chip England, Deputy Director of Public Works)
- **Updates to Erosion and Sediment Control Ordinance** (Chip England)
- **Updates to Chesapeake Bay Regulations** (Chip England)
- **Revised Best Management Practice (BMP) Maintenance Agreement** (Public Works)
  
- **Updates and Miscellaneous Matters:**
  - **Subdivision Street Sign Standards/Requirements Reminder**
  - **Update on Miscellaneous Legislative Matters**

Please let Betty Gray know if you plan to attend by 4:30 p.m. on Friday September 20, 2013. Mrs. Gray may be contacted at 365-6171 or by e-mail to [bsgray@hanovercounty.gov](mailto:bsgray@hanovercounty.gov). In case of inclement weather, if County Offices are closed, this meeting will be cancelled and rescheduled.

## **Appendix D - Total Land Disturbance Report FY2014**

| Year | Month     | Locality | Project Title                                | Project Address                                     | Owner/Applicant                           | Owner/Applicant Address                               | Owner/Applicant Contact No | Approval Date | Total Disturbed Acreage | Enforcement Action | Notes  |
|------|-----------|----------|--|---|---|---|----------------------------|---------------|-------------------------|--------------------|--|
| 2013 | July      | Hanover  | Walnut Grove Waterline Improvement (DPU)     | Walnut Grove Road - Near 360                        | Hanover DPU / Richard A. Kent             | P.O. Box 69, Spotsylvania Va. 22553                   | 540-898-3359               | 7/8/2013      | 0.4                     | No                 | VSMP Registration Checked                      |
| 2013 | July      | Hanover  | Bojangles Winding Brook                      | 11657 Lakeridge Parkway - Winding Brook             | Redco Properties /Brad Mercer             | 335 N. Queen Street, Kinston, NC 28501                | 252-341-6276               | 7/9/2013      | 1.5                     | No                 | VSMP Registration Checked                      |
| 2013 | July      | Hanover  | Richmond Harley Davidson                     | 12200 Harley Club Drive                             | Haley Builders/ David Hanky               | 10102 Whitsel Road, Ashland 23005                     | 804-798-3817               | 7/11/2013     | 5.9                     | No                 | VSMP Registration Checked                      |
| 2013 | July      | Hanover  | Right Flank Medical                          | 7515 Right Flank Road                               | Hanover Group LLC / Henry Shield          | P.O. Box 2350 Mechanicsville, Va 23116                | 804-370-0284               | 7/24/2013     | 1.5                     | Yes                | VSMP ConfirmedVAR10-13-100927                  |
| 2013 | August    | Hanover  | Runway 34 Approach, Obstruction Removal      | 9507 Sliding Hill Road                              | Hanover Co / Possie B. Chenault, Inc.     | P.O. Box 470 Hanover VA/ 583 River Bend Dr., Bumpa    | 365-6208/804-566-3630      | 8/6/2013      | 2.5                     | No                 | VSMP ConfirmedVAR10-13-101540                  |
| 2013 | August    | Hanover  | Providence Section 2                         | Woodside Lane                                       | HHHunt / Jonathan Ridout                  | 11237 Nuckols Road Glen Allen, Va 23059               | 804-762-4800               | 8/8/2013      | 13.3                    | No                 | VSMP ConfirmedVAR10-13-100291                  |
| 2013 | August    | Hanover  | Bailey Woods                                 | 10202 Ashcake Road                                  | Habitat for Humanity/ Timothy Bouring     | 8177 Mechanicsville Trpk, Mech Va 23111               | 804-569-6108               | 8/20/2013     | 4.17                    | No                 | VSMP Registration Checked                      |
| 2013 | September | Hanover  | Lakeridge Parkway Right Turn Lane Improvem   | Lakeridge Parkway                                   | Lewistown Commerce Ctr/ Holladay Property | 11159 Airpark Rd, Ste 2 Ashland, Va 23005             | 804-386-8583               | 9/3/2013      | 0.41                    | No                 | VSMP Registration Checked                      |
| 2013 | September | Hanover  | Bell Creek Point                             | Bell Creek  | Shield Hanover Trust / James Stanley      | P.O. Box 2350 Mechanicsville, Va 23116                | 804-874-4466               | 9/5/2013      | 1.4                     | No                 | VSMP Registration Checked                      |
| 2013 | September | Hanover  | Richmond Newspapers Basin Closure            | 8460 Times Dispatch Blvd                            | World Com Media / WW Snead                | 938 E. 4th Street Richmond, Va 23224                  | 804-377-2270               | 9/5/2013      | 0.5                     | No                 | VSMP Registration Checked                      |
| 2013 | September | Hanover  | Watts Land Disturbance                       | 13414 Walton's Tavern Road                          | William Watts                             | 1344 Waltons Tavern Rd, Montpelier Va 23192           | 804-399-5222               | 9/6/2013      | 4.1                     | Yes                | N/A Primarily Agricultural                     |
| 2013 | September | Hanover  | Porter Driveway                              | Buckeye Road at Pollard Creek                       | Elisha Porter / Mark Church               | P.O. Box 3294 Mechanicsville Va 23116                 | 804-840-9993               | 9/6/2013      | 0.74                    | No                 | VSMP Registration Checked                      |
| 2013 | September | Hanover  | Cary Hauling Storage Lot Expansion           | Hunters Ridge Subdivision /11520 Fox Cross Road,    | Darryl Cary                               | 11520 Fox Cross Road/ Ashland 23005                   | 804-798-4777               | 9/12/2013     | 5.13                    | No                 | VSMP Registration Checked                      |
| 2013 | September | Hanover  | Gethsemane Church of Christ                  | 5146 Mechanicsville Turnpike                        | Jerry Bailey                              | 5146 Mechanicsville Turnpike 23111                    | 804-349-7055               | 9/12/2013     | 3.1                     | No                 | VSMP Registration Checked                      |
| 2013 | September | Hanover  | Sydnor Project                               | 11250 Hopson Rd, Ashland Va                         | Robert Sydnor                             | 1094 Boatersway Dunnsville, VA 22454                  | 804-938-3603               | 9/23/2013     | 0.44                    | No                 | N/A Non-Bay less than 1 acre                   |
| 2013 | September | Hanover  | Olde Hanover Estates                         | 12121 Hanover Court House Rd                        | Hanover Land, LLC / Frank Volo            | 5490 Winsmith Dr, Mechanicsville, Va 23116            | 804-698-9781               | 9/27/2013     | 2                       | No                 | VSMP Registration Checked                      |
| 2013 | October   | Hanover  | McGeorge RV Expansion                        | 11525 Sun Shade Lane, Ashland, Va 23005             | EMAC.LLC / Gib Desazo                     | 2219 Dabney Road, Richmond 23230                      | 804-747-4854               | 10/4/2013     | 10                      | No                 | VSMP Registration Checked                      |
| 2013 | October   | Hanover  | Howland Job                                  | 12596 Mount Hermon Rd, Ashland, Va 23005            | James Kellum                              | 662 Sharon Rd. King William, Va 23086                 | 804-370-4704               | 10/29/2013    | 0.27                    | No                 | VSMP Registration Checked                      |
| 2013 | October   | Hanover  | Anchor Baptist Church                        | 7291 Atlee Rd, Mechanicsville, Va 23111             | Enon Wade                                 | 4348 Fox Hunter Lane Mechanicsville Va                | 804-677-3445               | 10/30/2013    | 3.2                     | No                 | VSMP Registration Checked                      |
| 2013 | November  | Hanover  | Villas @ Rose Hill                           | Atlee Road  | Matthew Peeler                            | 292 River Rd, West Manakin Sabot Va 23101             | 804-306-6196               | 11/1/2013     | 11.4                    | No                 | VSMP Registration Checked                      |
| 2013 | November  | Hanover  | FedEx Ground - Site Plan Amendment           | Airpark Road, Ashland                               | WestCo LLC / Chris White                  | 200 Randolph Ave, Huntsville AL 35801                 | 540-368-2688               | 11/18/2013    | 1.88                    | No                 | VSMP to be modified (change to existing perr   |
| 2013 | November  | Hanover  | Mihajlovits Residence / Barns / Riding etc   | 15239 Wood Pasture Lane                             | Stephen Mihajlovits                       | 15239 Wood Pasture Lane, Doswell Va 23047             | 804-744-3825               | 11/20/2013    | 10.94                   | Yes                | N/A Barn, Pasture nd Riding Ring - Primarily , |
| 2013 | December  | Hanover  | Montpelier Country Store                     | 17078 Montain Road, Montepier Va                    | John Mullins                              | 6500 Feather Edge Court Spotsylvania, Va 22553        | 540-710-1167               | 12/3/2013     | 1.43                    | No                 | VSMP Registration Checked                      |
| 2013 | December  | Hanover  | Sports Realty Real Estate                    | 8132 Beatty Farm Drive                              | Tim Amos                                  | 10986 Richardson Rd, Ashland Va 23005                 | 804-747-9600               | 12/6/2013     | 4.6                     | No                 | VSMP Registration Checked                      |
| 2013 | December  | Hanover  | Totopotomoy Waste Water Treatment Plant      | 9015 Pole Green Park Lane                           | Adam Thompson / Gary Craft (DPU)          | 11 Franklin Rd. SW, Roanoke Va 24011                  | 540-342-2112               | 12/11/2013    | 2.4                     | No                 | VSMP Registration Checked                      |
| 2013 | December  | Hanover  | Kroger Expansion                             | Chamberlayne and Atlee Road                         | Robert Sanford                            | 3631 Peters Creek Rd, Roanoke Va. 24019               | 770-496-5336               | 12/30/2013    | 2.03                    | No                 | VSMP Registration Checked                      |
| 2013 | December  | Hanover  | Wendy's at Winding Brook                     | Lakeridge Parkway/ Lewistown Road                   | John Chevalier                            | 812 Moorefield Park Drive, Suite 210 Richmond, Virgin | 804-323-9363               | 12/30/2013    | 1.45                    | No                 | VSMP Registration Checked                      |
| 2014 | January   | Hanover  | James River Nuseries - Irrigation Pond       | 15379 Burnham Davis Road                            | Randy Hooker                              | P.O. Box 50067 Richmond, Va 23250                     | 804-236-0192               | 1/2/2014      | 1.66                    | No                 | VSMP was filed but not required - Primarily A  |
| 2014 | January   | Hanover  | Honey Meadows Section 5                      | 10004 Meadow Pond Drive                             | William E. Goode, Jr                      | 1791 Cambridge Dr, Richmond Va. 23238                 | 804-357-6000               | 1/13/2014     | 5.7                     | No                 | VSMP Registration Checked                      |
| 2014 | January   | Hanover  | Ozone  | 11169 Air Park Rd                                   | Patrick O'Reilly                          | 9067 Little Joselyn Dr. Mechanicsville, Va 23116      | 804-349-7618               | 1/21/2014     | 0.62                    | No                 | VSMP Registration Checked                      |
| 2014 | January   | Hanover  | Woodside Estates Section 3                   | Woodside Lane                                       | Larry Shaia                               | 9400 Charter Crossing #B, Mechanicsville Va. 23116    | 804-339-8565               | 1/21/2014     | 25.6                    | No                 | VSMP VAR 10-13-101118                          |
| 2014 | February  | Hanover  | Sinclair / Meadowbridge Communications Tow   | 8198 Meadowbridge Road, Mechanicsville              | Evan Paner                                | 4198 Cox Rd, Suite 201, Glen Allen Virginia 23060     | 804-433-1835               | 2/11/2014     | 0.51                    | No                 | VSMP Registration Checked                      |
| 2014 | February  | Hanover  | Ortho Virginia @ Memorial Regional Medical C | 8198 Meadowbridge Road, Mechanicsville              | Evan Paner                                | 4198 Cox Rd, Suite 201, Glen Allen Virginia 23060     | 804-433-1835               | 2/11/2014     | 5.59                    | No                 | VSMP Registration Checked                      |
| 2014 | February  | Hanover  | Falling Creek Estates                        | Rt 54 West of Ashland near Falling Creek            | Tom Evans                                 | P.O. Box 988, Ashland, Va 23005                       | 804-363-8564               | 2/21/2014     | 6.68                    | No                 | VSMP Registration Checked                      |
| 2014 | February  | Hanover  | Meadowbrook Associates, LLC                  | Off Winston Rd across from Winston Estates Lane     | J. Wayne Dickerson                        | 16458 Gun Barrel Road, Montpelier Va 23192            | 804-640-3592               | 2/26/2014     | 2.64                    | No                 | VSMP Registration Checked                      |
| 2014 | March     | Hanover  | Kings Dominion Campground                    | 9900 Doswell Road                                   | Cliff Dean                                | 16000 Theme Park Way, Doswell, VA 23047               | 804-876-5215               | 3/12/2014     | 2                       | No                 | VSMP Registration Checked                      |
| 2014 | March     | Hanover  | Marley Point, Section 2                      | 9550 Chamberlayne Road                              | Nolan Felts                               | P.O. Box 4885 Glen Allen Va 23058                     | 804-651-1949               | 3/13/2014     | 12.07                   | No                 | VSMP Registration Checked                      |
| 2014 | March     | Hanover  | WaWA-US 360                                  | 7847 Compass Point Lane, Mechanicsville             | Marc Greenberg                            | 7301 Boulder View Lane, North Chesterfield 23225      | 804-320-0422               | 3/21/2014     | 3.34                    | No                 | VSMP Registration Checked                      |
| 2014 | March     | Hanover  | Abner Baptist Church                         | 15143 Abner Church Road, Glen Allen Va              | James Hooker                              | 1734 Hungary Road, Richmond Va. 23228                 | 804-833-1608               | 3/21/2014     | 0.66                    | No                 | VSMP Registration Checked                      |
| 2014 | March     | Hanover  | Caliber Equipment                            | Erle Road, Ellerson Industrial Park, Mechanicsville | Steve Crumley                             | 11482 Fox Cross Road, Ashland, VA 23005               | 804-266-6088               | 3/27/2014     | 2.24                    | No                 | VSMP Registration Checked                      |
| 2014 | March     | Hanover  | Right Flank Medical - Stockpile              | 8356 Bell Creek Road, Mechanicsville                | Robert McCann                             | 4900 Augusta Avenue, Richmond 23230                   | 804-221-9227               | 3/31/2014     | 0.3                     | No                 | VSMP amendment to Right Flank Medical Prc      |
| 2014 | April     | Hanover  | Elmont -301 Landfill Maintenance             | Lewistown Road and Courtland Farm Road              | John Saunders                             | P.O. Box 470 Hanover Va. 23069                        | 804-365-6156               | 4/7/2014      | 1.5                     | No                 | N/A Maintenance of existing line and grade     |
| 2014 | May       | Hanover  | McDonalds US 301                             | 9145 Chamberlayne Road, Mechanicsville              | Keith Robertson                           | 8086 Elm Drive, Mechanicsville, Va 23111              | 804-310-0011               | 5/5/2014      | 0.47                    | No                 | VSMP Registration Checked                      |
| 2014 | May       | Hanover  | Ivy Banks Dredge Spoil Site                  | Kings Charter, Durhams Ferry Place, Mechanicsville  | Larry Shaia                               | 9407 Kings Charter Drive, Mechanicsville, Va 23116    | 804-339-8565               | 5/8/2014      | 0.51                    | No                 | N/A Maintenance of existing line and grade     |
| 2014 | May       | Hanover  | Tolley E&S Plan                              | Lot 36 Riverside Drive, Country Club Hills          | Billy Tolley                              | 10985 Richardson Road, Ashland, Va 23005              | 804-752-5920               | 5/23/2014     | 0.39                    | No                 | VSMP Not Required                              |
| 2014 | May       | Hanover  | Cobblestones Waterline Extension             | 13131 Overhill Lake Lane                            | Walter Britton                            | 13131 Overhill Lake Ln, Glen Allen, Va 23059          | 804-380-6763               | 5/23/2014     | 0.47                    | No                 | VSMP Registration Checked                      |
| 2014 | May       | Hanover  | Cypresstree, Section 7                       | Cypresstree Subdivision off Lee Davis Road          | Richard Youngblood                        | P.O. Box 276 Mechanicsville, Va 23111                 | 804-746-5465               | 5/29/2014     | 1.83                    | No                 | VSMP Registration Checked                      |
| 2014 | June      | Hanover  | Flournoy Business Center                     | 11231 Washington Highway                            | Steve Flournoy                            | 6186 Fire Ln, Mechanicsville, va 23116                | 804-641-5490               | 6/4/2014      | 0.8                     | No                 | VSMP Registration Checked                      |
| 2014 | June      | Hanover  | Providence Section 3                         | Woodside Lane                                       | Jonathan D. Rideout                       | 11237 Nuckols Road Glen Allen, Va 23059               | 804-762-4800               | 6/12/2014     | 10.11                   | No                 | VSMP Registration Checked                      |
| 2014 | June      | Hanover  | Sliding Hill Rd - Airpark Intersection       | Sliding Hill and Airpark intersection               | Sanders L. Wilhelm                        | 11800 Lewis Road, Chester Va 23831                    | 804-648-5823               | 6/16/2014     | 1.37                    | No                 | VSMP Registration Checked                      |
| 2014 | June      | Hanover  | Cool Springs West - Section 1                | Cool Springs Road                                   | Ric Rowland                               | 9608 Georges Bluff Rd, Richmond, Va 23239             | 804-561-7463               | 6/25/2014     | 38.1                    | No                 | VSMP Registration Checked                      |
| 2014 | June      | Hanover  | Cool Springs West - Section 2                | Cool Springs Road                                   | Ric Rowland                               | 9608 Georges Bluff Rd, Richmond, Va 23239             | 804-561-7463               | 6/25/2014     | 12.9                    | No                 | VSMP Registration Checked                      |
| 2014 | June      | Hanover  | Cool Springs West - Section 5                | Cool Springs Road                                   | Ric Rowland                               | 9608 Georges Bluff Rd, Richmond, Va 23239             | 804-561-7463               | 6/25/2014     | 6.9                     | No                 | VSMP Registration Checked                      |
| 2014 | June      | Hanover  | Hanover Co. Airport Tree Removal             | Airpark Road, Ashland                               | Hank Rempe                                | P.O. Box 470, Hanover Virginia 23069                  | 804-365-6208               | 6/27/2014     | 0.97                    | No                 | VSMP Not Required (Not CBPA)                   |

## **Appendix E - Commercial Site Inspections**

# 2014 Commercial Site inspections

## Site ID 1

Stand Alone Business

No problems noted      John Bourret      6/25/2014  
Report  Photos

No problems noted      John Bourret      12/18/2013  
Report  Photos

## Site ID 2

Atlee Square

Litter behind center      John Bourret      12/9/2013  
Report  Photos

Cleaning rags behind Brunertti's, everything else looks good!

Litter behind center      John Bourret      6/27/2014  
Report  Photos

Cleaning mops behind Brunetti's. The rest of the center is ok however it looks trashy.

## Site ID 3

Stand Alone Business

No problems noted      J. Bourret      12/13/2013  
Report  Photos

Good!

No problems noted      J. Bourret      6/30/2014  
Report  Photos

## Site ID 4

Battlefield Commons

No problems      John Bourret      11/20/2013  
Report  Photos

Small amount of litter around dumpster. Much improved from 2012.

No problems      John Bourret      6/23/2014  
Report  Photos

Small amount of litter around dumpster.

**Site ID 5**  
Bay Court Shopping Center

No problems noted      John Bourret      12/18/2013  
Report  Photos

No problems noted      John Bourret      6/27/2014  
Report  Photos

**Site ID 6**  
The Shoppes at Bell Creek

Problems noted      John Bourret      6/25/2014  
Report  Photos

Getting messy behind the center. Greasy pavement behind Chen's. Furniture and "gang" taggings behind The Patron.

no problems      John Bourret      11/20/2013  
Report  Photos

Much improvement since last visit.

no problems      John Bourret      6/25/2014  
Report  Photos

**Site ID 7**  
Brandy Hill Plaza

No problems noted      John Bourret      6/27/2014  
Report  Photos

No problems noted      John Bourret      12/9/2013  
Report  Photos

**Site ID 8**  
Stand Alone

No problems noted      John Bourret      12/9/2013  
Report  Photos

---

No problems noted

John Bourret

6/25/2014

Report  Photos

---

**Site ID 9**

Stand Alone

No problems noted

John Bourret

11/20/2013

Report  Photos

---

No problems noted

John Bourret

6/23/2014

Report  Photos

Storm Damage - trees down

---

**Site ID 10**

Stand Alone

No problems noted

John Bourret

12/18/2013

Report  Photos

---

No problems noted

John Bourret

6/26/2014

Report  Photos

---

**Site ID 11**

Bowles Farm Plaza

no problems

John Bourret

12/9/2013

Report  Photos

Some boxes outside but looks good in general. No evidence of outdoor cleaning or dumping.

---

no problems

John Bourret

6/23/2014

Report  Photos

---

**Site ID 12**

Creighton Crossing

No Problems noted

John Bourret

6/23/2014

Report  Photos

---

No Problems noted

John Bourret

11/20/2013

Report  Photos

---

**Site ID 13**

Unnamed Shopping Center

No problems noted

John Bourret

6/24/2014

Report  Photos

---

No problems noted

John Bourret

12/9/2013

Report  Photos

---

**Site ID 14**

North Cross Center

No new problems noted

John Bourret

12/13/2013

Report  Photos

see above

---

No new problems noted

John Bourret

6/30/2014

Report  Photos

see above

---

**Site ID 15**

Hanover Commons

no problems noted

John Bourret

11/21/2013

Report  Photos

---

no problems noted

John Bourret

6/27/2014

Report  Photos

---

**Site ID 16**

Hanover Village

problems noted

John Bourret

12/9/2013

Report  Photos

Litter and boxes behind Anna's and TSC.

---

problems noted      John Bourret      6/27/2014

Report      Photos  

Litter and boxes behind TSC. Pavement seems to be getting etched behind Anna's. Need to check back often, possible outdoor cleaning?

**Site ID      17**

Hanover Square

---

possible problems      John Bourret      12/9/2013

Report      Photos  

Outdoor cleaning? I need to return when it's not raining.

---

possible problems      John Bourret      6/25/2014

Report      Photos  

Evidence of outdoor cleaning. Need followup.

---

Problems noted      John Bourret      12/18/2013

Report      Photos  

A large amount of litter near compactor. I spoke with the Manager and he said he would have it cleaned up.

---

problems noted      John Bourret      12/18/2013

Report      Photos  

More litter around compactor and rear of store. I spoke with the Manager, she said she would have their parking lot contractor clean up the litter.

---

problems noted      John Bourret      12/9/2013

Report      Photos  

Litter around dumpster at Kohls.

---

No problems noted      John Bourret      6/25/2014

Report      Photos  

---

No problems noted      John Bourret      12/13/2013

Report      Photos  

---

**Site ID      18**

Stand Alone

---

No Problems noted      John Bourret      11/20/2013

Report      Photos

---

No Problems noted      John Bourret      6/23/2014

Report  Photos

Trash near dumpsters.

---

**Site ID      19**

Stand Alone

---

No Problems noted      John Bourret      12/18/2013

Report  Photos

---

No Problems noted      John Bourret      6/26/2014

Report  Photos

---

**Site ID      20**

Stand Alone

---

No problems noted      John Bourret      12/18/2013

Report  Photos

---

No problems noted      John Bourret      6/27/2014

Report  Photos

---

**Site ID      21**

Stand Alone

---

No new problems noted      John Bourret      11/20/2013

Report  Photos

It appears that the outdoor cleaning has ceased, however, staining on pavement is still evident.

---

Problems noted      John Bourret      6/23/2014

Report  Photos

New evidence of outdoor cleaning. Followup required.

---

**Site ID      22**

Kings Charter Village Center

---

Problems noted      John Bourret      6/24/2014

Report  Photos

Total mess around dumpster at loading dock. Litter, garbage, top of dumpster is open to the elements.

---

No problems noted      John Bourret      6/24/2014  
Report      Photos  

---

No problems noted      John Bourret      12/17/2013  
Report      Photos  

---

Problems noted      John Bourret      6/24/2014  
Report      Photos  

Fencing around dumpster pad is falling down. A person is sleeping in a make shift shelter in that area.

**Site ID      23**

Unnamed Shopping Center

---

No problems noted      John Bourret      12/9/2013  
Report      Photos  

---

No problems noted      John Bourret      6/27/2014  
Report      Photos  

**Site ID      24**

Stand Alone

---

No problems noted      John Bourret      11/20/2013  
Report      Photos  

---

No problems noted      John Bourret      6/23/2014  
Report      Photos  

**Site ID      25**

Stand Alone

---

No problems noted      John Bourret      12/9/2013  
Report      Photos  

---

No problems noted      John Bourret      6/25/2014  
Report      Photos

**Site ID 26**

Stand Alone

No problems noted      John Bourret      12/17/2013  
Report  Photos

No problems noted      John Bourret      6/24/2014  
Report  Photos

**Site ID 27**

Stand Alone

No problems noted      John Bourret      6/26/2014  
Report  Photos

No problems noted      John Bourret      12/17/2013  
Report  Photos

**Site ID 28**

Stand Alone

No problems noted      John Bourret      12/17/2013  
Report  Photos

No problems noted      John Bourret      6/25/2014  
Report  Photos

**Site ID 29**

Montpelier Shoppes -

No problems noted      John Bourret      12/19/2013  
Report  Photos

No problems noted      John Bourret      6/23/2014  
Report  Photos

**Site ID 30**

Village Green -

---

No new problems noted John Bourret 12/19/2013

Report  Photos

Same as above. Slight improvement since last visit.

---

No new problems noted John Bourret 6/23/2014

Report  Photos

Messy behind the center - not in MS4 area. No potential to enter SW inlet.

---

**Site ID 31**

Rutland Commons -

---

no problems noted John Bourret 12/9/2013

Report  Photos

---

no problems noted John Bourret 6/27/2014

Report  Photos

Lots of construction activity- Krogers

---

problems noted John Bourret 12/9/2013

Report  Photos

Litter around dumpsters.

---

problems noted John Bourret 12/10/2013

Report  Photos

---

**Site ID 32**

Rutland Commons -

---

problems noted John Bourret 6/27/2014

Report  Photos

---

No problems noted John Bourret 6/23/2014

Report  Photos

Staining around FOG container. Not MS4 area.

---

No problems noted John Bourret 12/13/2013

Report  Photos

---

**Site ID 33**

Stand Alone

---

---

No problems noted      John Bourret      6/23/2014  
Report      Photos  

---

No problems noted      John Bourret      12/13/2013  
Report      Photos  

**Site ID      34**

Stand Alone

No new problems noted      John Bourret      12/18/2013  
Report      Photos  

No change since last time. They do have an outdoor sink/drain for a mop bucket. I don't see any new evidence of outdoor equipment cleaning.

No new problems noted      John Bourret      6/27/2014  
Report      Photos  

**Site ID      35**

Stand Alone

No problems noted      John Bourret      12/18/2013  
Report      Photos  

No problems noted      John Bourret      6/27/2014  
Report      Photos  

**Site ID      36**

Fastmart Shopping Center

No problems noted      John Bourret      12/17/2013  
Report      Photos  

No problems noted      John Bourret      6/27/2014  
Report      Photos  

**Site ID      37**

Stand Alone

---

No problems noted      John Bourret      12/18/2013  
Report      Photos  

---

No problems noted      John Bourret      6/27/2014  
Report      Photos  

---

**Site ID      38**

Stand Alone

---

No problems noted      John Bourret      12/9/2013  
Report      Photos  

---

No problems noted      John Bourret      6/27/2014  
Report      Photos  

---

**Site ID      39**

Stand Alone

---

No problems noted      John Bourret      12/9/2013  
Report      Photos  

---

No problems noted      John Bourret      6/27/2014  
Report      Photos  

---

**Site ID      40**

Stand Alone

---

No problems noted      John Bourret      6/25/2014  
Report      Photos  

---

No problems noted      John Bourret      12/17/2013  
Report      Photos  

---

**Site ID      41**

Stand Alone

---

No problems noted      John Bourret      12/9/2013  
Report      Photos  

---

No problems noted      John Bourret      6/25/2014  
Report      Photos  

---

**Site ID      42**

Stand Alone

---

No problems noted      John Bourret      12/17/2013  
Report      Photos  

---

No problems noted      John Bourret      6/24/2014  
Report      Photos  

---

**Site ID      43**

Stand Alone

---

No problems noted      John Bourret      12/9/2013  
Report      Photos  

---

No problems noted      John Bourret      6/27/2014  
Report      Photos  

---

**Site ID      44**

Spring Center

---

No problems noted      John Bourret      12/18/2013  
Report      Photos  

---

No problems noted      John Bourret      6/27/2014  
Report      Photos  

---

**Site ID      45**

Stonewall Square

---

No problems noted

John Bourret

6/23/2014

Report  Photos

---

No problems noted

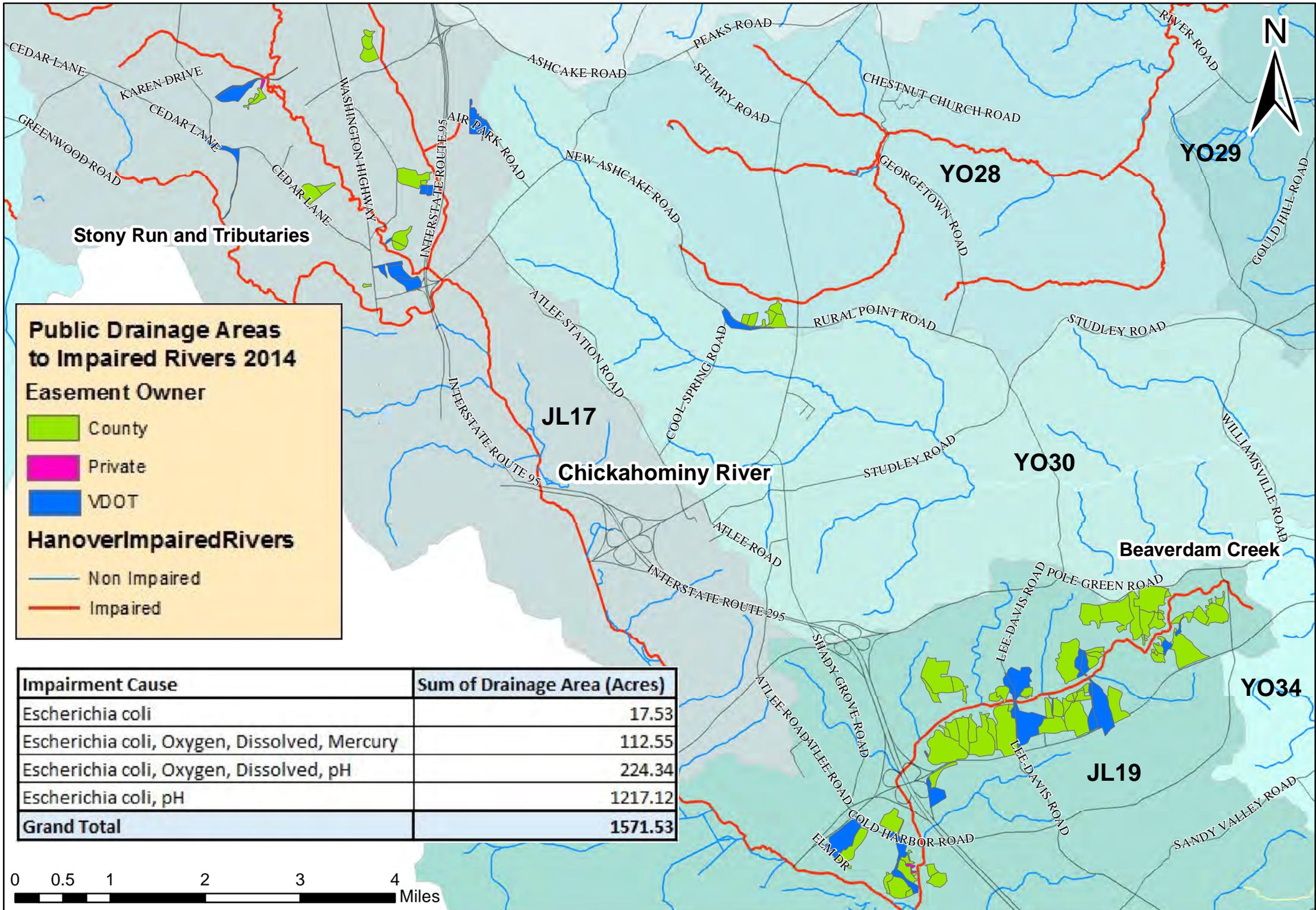
John Bourret

11/20/2013

Report  Photos

## **Appendix F - Outfall Information**

# Public Drainage Areas to Impaired Rivers Hanover, Virginia 2014



## **Appendix G - Illicit Discharge Spreadsheet**

Example data see note below

### Outfall General Information

|                            |                                |
|----------------------------|--------------------------------|
| Facility ID:               | 117200051                      |
| Subdivision Name:          | Summer Walk                    |
| Street Location:           | 8237 Ellerson Green Place      |
| Relative Location:         | right                          |
| Location Type:             | Residential                    |
| Tributary:                 | Stony Run Creek                |
| DrainageType:              | Pipe                           |
| Ditch Height (in):         |                                |
| Ditch Width (in ):         |                                |
| Ditch Material:            |                                |
| Ditch Bottom Width (in ):  |                                |
| Parabolic:                 | <input type="checkbox"/>       |
| Pipe Diameter (in inches): | 24                             |
| Pipe Material:             | Reinforced Concrete Pipe (RCP) |

|                     |           |
|---------------------|-----------|
| Date:               | 7/29/2013 |
| Inspector Initials: | TA/MC     |
| HUC Code:           | G-05      |

|              |  |
|--------------|--|
| OutfallOwner |  |
| County       |  |

### Inspection Observations

|                         |    |                             |                          |
|-------------------------|----|-----------------------------|--------------------------|
| Stains:                 | No | Turbid:                     | No                       |
| Deposits:               | No | Damage:                     | No                       |
| Sheens:                 | No | Color:                      | No                       |
| Growths:                | No | Other:                      | No                       |
| Floatables:             | No | Flow:                       | <input type="checkbox"/> |
| Odors:                  | No | SC (Specific Conductivity): |                          |
| Petroleum:              | No | pH:                         |                          |
| Sediments:              | No | Temp (C):                   |                          |
| Vegetation:             | No | TDS (ppm):                  |                          |
| Debris:                 | No | FollowUp Required ?         | False                    |
| Maintenance Required ?: | No | Picture...Note Time         | G05-02-04                |

|                       |         |
|-----------------------|---------|
| Remarks/Observations: | No flow |
|-----------------------|---------|

This information is provide for purpose of example of data maintained by the Department of Public Works. Information on all stormwater outfalls are maintained. Hanover County has begun mapping and inspecting new outfalls within the 2010 census area. 121 new outfalls within the 2010 census area have been identified. In addition to these outfalls, 161 outfalls were inspected for year 1 of the 3rd MS4 permit cycle.

Facility ID: **117200051**

Old Outfall ID: **G05-02-04**



Permit Cycle 1



Permit Cycle 2



New Outfalls/DA Work



Permit Cycle 3

### Outfall General Information

|                            |                                  |
|----------------------------|----------------------------------|
| Facility ID:               | 119200213                        |
| Subdivision Name:          | Summergrove                      |
| Street Location:           | 8117 Castle Grove Drive          |
| Relative Location:         | left                             |
| Location Type:             | Residential                      |
| Tributary:                 | Beaverdam Creek                  |
| DrainageType:              | Pipe                             |
| Ditch Height (in):         |                                  |
| Ditch Width (in ):         |                                  |
| Ditch Material:            |                                  |
| Ditch Bottom Width (in ):  |                                  |
| Parabolic:                 | <input type="checkbox"/>         |
| Pipe Diameter (in inches): | 18                               |
| Pipe Material:             | High Density Polyethylene (HDPE) |

|                     |           |
|---------------------|-----------|
| Date:               | 8/20/2013 |
| Inspector Initials: | TA/MC     |
| HUC Code:           | G-06      |

|              |  |
|--------------|--|
| OutfallOwner |  |
| County       |  |

### Inspection Observations

|                         |    |                             |                          |
|-------------------------|----|-----------------------------|--------------------------|
| Stains:                 | No | Turbid:                     | No                       |
| Deposits:               | No | Damage:                     | No                       |
| Sheens:                 | No | Color:                      | No                       |
| Growths:                | No | Other:                      | No                       |
| Floatables:             | No | Flow:                       | <input type="checkbox"/> |
| Odors:                  | No | SC (Specific Conductivity): |                          |
| Petroleum:              | No | pH:                         |                          |
| Sediments:              | No | Temp (C):                   |                          |
| Vegetation:             | No | TDS (ppm):                  |                          |
| Debris:                 | No | FollowUp Required ?         | True                     |
| Maintenance Required ?: | No | Picture...Note Time         | G06-03-52                |

|                       |                |
|-----------------------|----------------|
| Remarks/Observations: | Could not find |
|-----------------------|----------------|

Facility ID: **119200213**

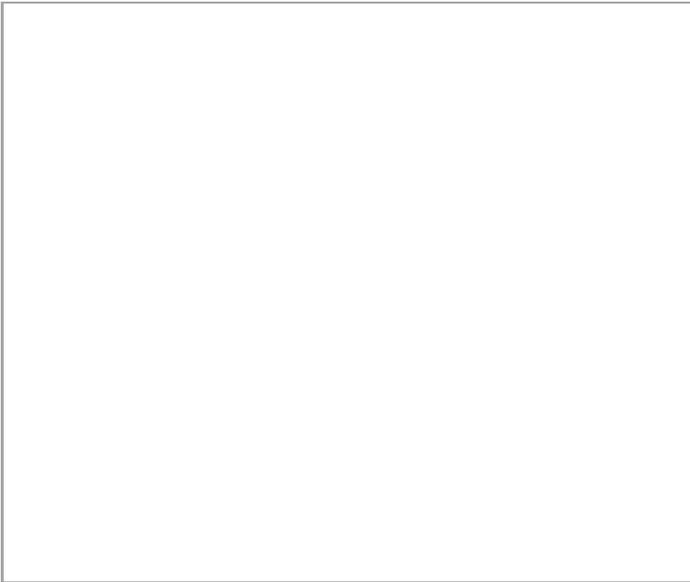
Old Outfall ID: **G06-03-52**



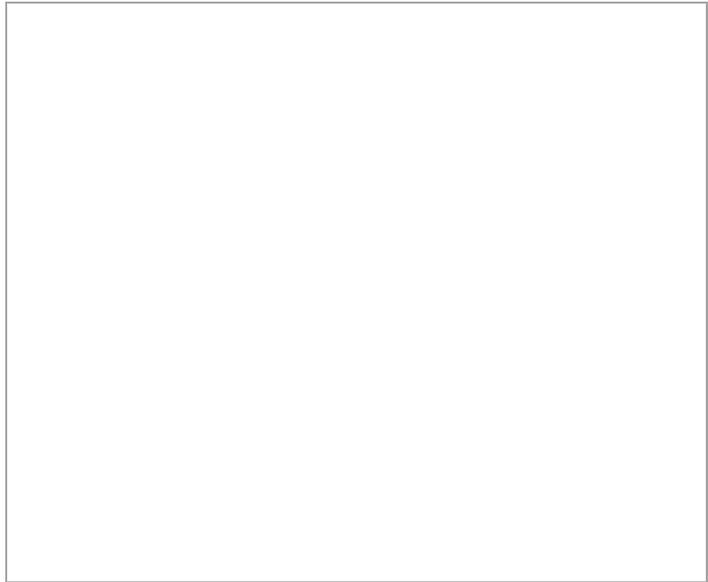
Permit Cycle 1



Permit Cycle 2



New Outfalls/DA Work



Permit Cycle 3

### Outfall General Information

|                            |                                  |
|----------------------------|----------------------------------|
| Facility ID:               | 119200262                        |
| Subdivision Name:          | Pebble Creek                     |
| Street Location:           | 8006 Clear Run Court             |
| Relative Location:         | left/behind                      |
| Location Type:             | Residential                      |
| Tributary:                 | Beaverdam Creek                  |
| DrainageType:              | Pipe                             |
| Ditch Height (in):         |                                  |
| Ditch Width (in ):         |                                  |
| Ditch Material:            |                                  |
| Ditch Bottom Width (in ):  |                                  |
| Parabolic:                 | <input type="checkbox"/>         |
| Pipe Diameter (in inches): | 18                               |
| Pipe Material:             | High Density Polyethylene (HDPE) |

|                     |           |
|---------------------|-----------|
| Date:               | 8/27/2013 |
| Inspector Initials: | TA/MC     |
| HUC Code:           | G-06      |

|              |  |
|--------------|--|
| OutfallOwner |  |
| County       |  |

### Inspection Observations

|                         |    |                             |                          |
|-------------------------|----|-----------------------------|--------------------------|
| Stains:                 | No | Turbid:                     | No                       |
| Deposits:               | No | Damage:                     | No                       |
| Sheens:                 | No | Color:                      | No                       |
| Growths:                | No | Other:                      | No                       |
| Floatables:             | No | Flow:                       | <input type="checkbox"/> |
| Odors:                  | No | SC (Specific Conductivity): |                          |
| Petroleum:              | No | pH:                         |                          |
| Sediments:              | No | Temp (C):                   |                          |
| Vegetation:             | No | TDS (ppm):                  |                          |
| Debris:                 | No | FollowUp Required ?         | True                     |
| Maintenance Required ?: | No | Picture...Note Time         | G06-04-89                |

|                       |  |
|-----------------------|--|
| Remarks/Observations: | Heavy growth visit to detemine action. |
|-----------------------|--|

Facility ID: 119200262

Old Outfall ID: G06-04-89



Permit Cycle 1



Permit Cycle 2



New Outfalls/DA Work



Permit Cycle 3

### Outfall General Information

|                            |                                |
|----------------------------|--------------------------------|
| Facility ID:               | 119200280                      |
| Subdivision Name:          | Pebble Creek                   |
| Street Location:           | 6192 Pond Grass Road           |
| Relative Location:         | left/rear                      |
| Location Type:             | residential                    |
| Tributary:                 | Beaverdam Creek                |
| DrainageType:              | Pipe                           |
| Ditch Height (in):         |                                |
| Ditch Width (in ):         |                                |
| Ditch Material:            |                                |
| Ditch Bottom Width (in ):  |                                |
| Parabolic:                 | <input type="checkbox"/>       |
| Pipe Diameter (in inches): | 24                             |
| Pipe Material:             | Reinforced Concrete Pipe (RCP) |

|                     |           |
|---------------------|-----------|
| Date:               | 8/30/2013 |
| Inspector Initials: | TA/MC     |
| HUC Code:           | JL19      |

|              |  |
|--------------|--|
| OutfallOwner |  |
| County       |  |

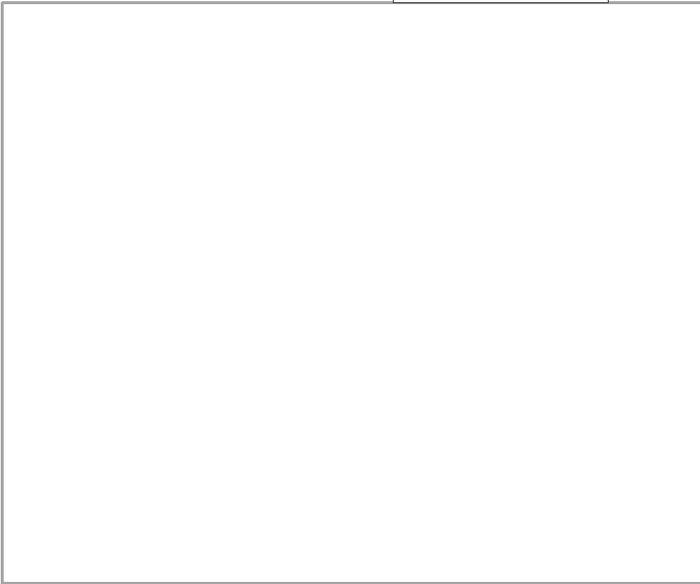
### Inspection Observations

|                         |    |                             |                          |
|-------------------------|----|-----------------------------|--------------------------|
| Stains:                 | No | Turbid:                     | No                       |
| Deposits:               | No | Damage:                     | No                       |
| Sheens:                 | No | Color:                      | No                       |
| Growths:                | No | Other:                      | No                       |
| Floatables:             | No | Flow:                       | <input type="checkbox"/> |
| Odors:                  | No | SC (Specific Conductivity): |                          |
| Petroleum:              | No | pH:                         |                          |
| Sediments:              | No | Temp (C):                   |                          |
| Vegetation:             | No | TDS (ppm):                  |                          |
| Debris:                 | No | FollowUp Required ?         | True                     |
| Maintenance Required ?: | No | Picture...Note Time         |                          |

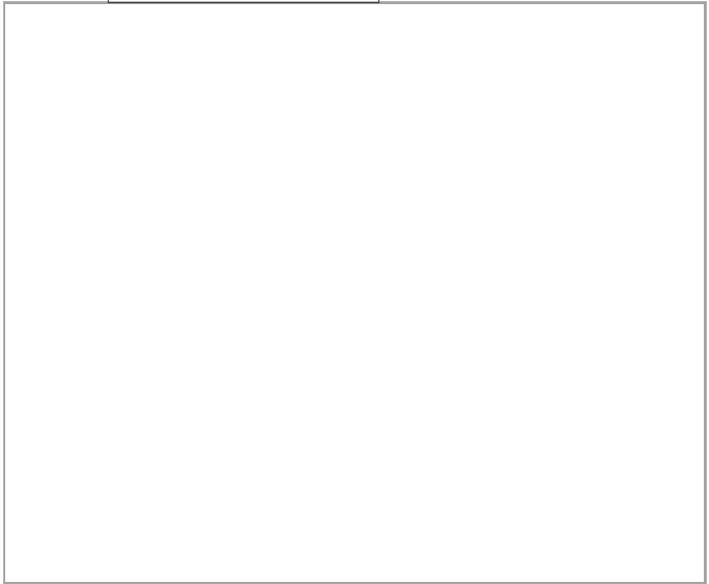
|                       |            |
|-----------------------|------------|
| Remarks/Observations: | Reinspect. |
|-----------------------|------------|

Facility ID: **119200280**

Old Outfall ID:



Permit Cycle 1



Permit Cycle 2



New Outfalls/DA Work



Permit Cycle 3

### Illicit Discharge Complaint Tracking Form

| Complaint Reported By                                   | Issues  | Subdivision                     | Address   | Engineer | Date Received | Date Inspected | Date Resolved | Priority | Enforcement Action  | Type of Resolution   | IN MSA ? |
|---|---|---------------------------------|---|----------|---------------|----------------|---------------|----------|---|--|----------|
| Ladd Grindstaff - Deputy Firemarshal                    | Contractor washing exhaust venting and discharging to ground.   | None                            | 10130 Lakeridge Parkway, Suite 109                | MJD      | 9/4/2009      | 9/5/2009       | 9/5/2009      | Low      | Warning   | Firemarshal and I both explained to the shop owner and the contractor that discharge to stormsewer was not permitted.  | Yes      |
| Chris Slem - Battalion Chief, Deputy Firemarshal        | Fuel spill by delivery contractor at Patrick Henry HS   | None                            | 12449 Patrick Henry Rd. Ashland, VA 23005         | MJD      | 5/12/2009     | 5/12/2009      | 5/12/2009     | High     | Person responsible for the spill was identified and charged with a Class 1 misdemeanor under the Virginia Fire Prevention Code Section 2703.3.1 | A cleanup contractor is now onsite 05/12/2009 and will be managing cleanup for James River Petroleum this evening. Fire is pursuing the investigation and will charge as appropriate...the petroleum company was responsible for the spill. The spill has been reported, Mr. Cash and Mr. Ashby with schools were on-site. | No       |
| Citizen   | Historic automobile fuel tanks in river   | None                            | Adjacent to Pop's Pick and Pay                    | MJD      | N/A           | N/A            | 7/2/2009      | Low      | Tanks Removed   | Worked with DEQ to ensure cleanup of tanks. DEQ has indicated that the tanks have been removed.  | No       |
| <b>FY 2010</b>  |   |                                 |   |          |               |                |               |          |   |  |          |
| Jonathan Wingfield - Hanover County Deputy Fire Marshal | Grease and water discharge due to cleaning fryers outdoors  | None                            | KFC, 7091 Mechanicsville Turnpike                 | MJD      | 9/12/2009     | N/A            | 12/16/2009    | High     | Required submission and implementation of SWPPP plan consistent with provisions in County ordinance.  | SWPPP plan submitted, inspections submitted for one year to demonstrate proper management of grease wastes.  | Yes      |
| Mike Flagg - Director of Public Works                   | Discharge of water mixed with stone fines   | Airpark                         | Natural Marble and Granite, 10978 Richardson Road | MJD      | 9/3/2009      | 9/28/2009      | 10/22/2009    | Low      | None - Assist with proper management of water   | Site visit 10/22/2009 with Matt Ellinghaus with public utilities. Business has installed water recycling equipment to filter fines from water so it can be reused in cutting equipment.  | No       |
| Mike Dieter   | Homeowner Dumping grass clipping in drainageway   | Milestone                       | John Wheatley Indianfield Drive                   | MJD      | 12/3/2009     | 12/3/2009      | 12/4/2009     | Low      | None - Sent letter regarding proper waste mgmt.   | Sent letter regarding proper waste management  | Yes      |
| Marcus Allen VDH/Andy Marchetti Building Inspections    | Discharge of Sewage   | Patrick Henry Heights           | 8477 Wheeling Road                                | MJD      | 2/3/2010      | 2/3/2010       | 2/3/2010      | Low      | None - Health department and building inspections to resolve issue of overflowing grinder pump with home owner                                  | Building inspections to issue stop work order and work with homeowner to resolve building code violations.   | No       |
| Anonymous   | Pipe in ditch may be discharging sewage   | Forest Lake Hills               | 11042 Palmwood Circle                             | MJD      | 3/23/2010     | 3/25/2010      | 3/31/2010     | LOW      | None  | Marcus Allen confirmed that a Groundwater Interceptor was installed at the home and is part of the permitted septic system.  | Yes      |
| Ann Bateman   | Oil spill at intersection of Robin Way and Brandy Creek Drive   |                                 | 7389 Brandy Creek Drive                           | MJD      | 4/15/2010     | N/A            | 4/15/2010     | Low      | None  | Referred to fire Marshall for Clean up. Spoke with Chief Slem who indicated that they would place absorbent sweep up and confer with VDOT on the spill which occurred in the public ROW. Chief Slem indicated that the spill was small and there was no discharge to stormwater infrastructure or surface waters.          | Yes      |
| Vickey Bowers   | Grass clippings in ditch  | Berkley Forest                  | 9228 Wyattwood Road                               | MJD      | 4/14/2010     | 4/20/2010      | 4/20/2010     | Low      | Left fliers   | Left fliers for all properties adjacent to the ditch   | Yes      |
| Michael Sheppard  | Concrete in ditch   | airpark                         | 10966 Leadbetter Road                             | MJD      | 5/14/2010     | 5/19/2010      |               | Low      | Spoke with the business and let them know that discharge to the storm sewer system was not allowed.   | Asked the owner to stop the discharge. They indicated that they would be installing a filter system. I asked them to call when it was installed.   | No       |
| <b>FY2011</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Jonathan Wingfield                                      | Discharge of car washing entering storm sewer   | None                            | 7006 Mechanicsville Turnpike                      | MJD      | 10/6/2010     | 9/20/2010      | 10/12/2010    | low      | None  | Letter sent notifying that car washing was against County ordinances. Will followup as needed with the store manager.  | Yes      |
| Brian Sulser  | Neighbor Blowing Leaves into Lake   | Walnut Grove                    | 7042 Walgrove Court                               | MJD      | 11/23/2010    | N/A            | 11/23/2010    | Low      | None  | Sent resident letter notifying them of requirements to dispose of leaves properly  | Yes      |
| County Staff  | Washing equipment into storm drain  | None                            | 7251 Bell Creek Road                              | MJD      | 2/7/2011      | 2/7/2011       |               | Low      | None  | Spoke with Steven Oliver 559-7333 x-385 equipment rental manager to determine what actions can be taken to ensure that sediment does not enter the storm drains adjacent to the equipment rental area.   | Yes      |
| David Taylor  | David is an intern investigating impacts to drainage corridors to Beaverdam Creek. He discovered a disconnected sanitary lateral. | Spring Meadows                  | 7186 Hunterbrook Circle                           | MJD      | 2/25/2011     | 2/25/2011      | 3/1/2011      | High     | Referred to health department for investigation and resolution.   |  | Yes      |
| Anonymous   | Grease dumping in storm drain system by China Wok Restaurant  | Hanover Commons Shopping Center | China Wok, 9502 Chamberlayne Rd # 20              | MJD      | 3/3/2011      | 3/7/2011       |               | Low      | Investigation by Fire Marshall  | Under Investigation/ Spoke with manger he indicated he would engage a disposal company.  | Yes      |
| Steve Morris DEQ  | Multiple dumping and waste management issues  | None                            | 9004 Shady Grove Road                             | MJD      | 3/8/2011      | 3/8/2011       | 3/29/2011     | Low      | Investigation by DEQ, Firemarshal me  | Minor violations followed up with owner who decommissioned sink and took out the corner restroom. Other issues are with DEQ  | Yes      |
| <b>FY2012</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Pipe Crew   | Cool Wells  | Cool Wells                      |   | MJD      | 7/14/2011     | 7/14/2011      | 7/14/2011     | Low      | Sent letter to adacent owners regarding proper disposal of pet waste  | Letter sent notifying that car washing was against County ordinances. Will followup as needed with the store manager.  | Yes      |
|   | Cracker Barrel presure washing parking lot areas  | None                            | 7367 Bell Creek Road                              | MJD      | 11/11/2011    | 11/15/2011     | 11/15/2011    | Low      | Discussed alternatives to store manager   | Pressure washing outdoor areas   | Yes      |
| Anonymous   | Complaint indicated odor from storm drain inlet at 9563 Kings Charter Drive. Call in indicated they                               | Kings Charter                   | 9563 Kings Charter Drive                          | MJD      | 11/29/2011    | 11/29/2011     | 11/29/2011    | Low      | None, No odor was detected at the time of inspection during an active rain event.   | Talk to John Bourret about followup on storm drains in this shopping center. Also reinspect when/during dry weather to   | No       |
| Lee Mooney  | Discharge of carwash water into storm drain   | None                            | 10446 Lewistown Road                              | MJD      | 1/12/2012     | N/A            | 1/12/2011     | Low      | Referred to Planning for possible zoning violation  | Referred to Tim Wilson with zoning enforcement. Tim to inspect site.   | No       |
| Steve Chidsey   | Cleaning solutions appear to be dumped in storm drain Ginger Red Chinese Restaurant   | None                            | 7500 Jackson Arch Drive                           | MJD      | 2/20/2012     | 2/22/2012      | 2/22/2012     | Low      | Met with owner to discuss   | Discussed with facility owner regarding proper disposal of cleaning solutions. He indicated we had talked in 2010. Discussed no thing other than stormwater in stormdrain.   | Yes      |
| Mike Flagg - Director of Public Works                   | Appears to be illicit discharge in Signal Hill Commercial area (Williams Bakery)  | None                            | 8086 Mechanicsville TP                            | MJD      | 2/22/2012     | 2/22/2012      | 2/22/2012     | Low      | none  | Talked to owners and left materials for proper disposal.   | Yes      |
| Mike Flagg - Director of Public Works                   | Brandy Hill Plaza - Pesticide Spill Due to braoken valve on tank  | None                            | 7000 Mechanicsville Turnpike                      | MJD      | 4/26/2012     | 04/26/2012     |               | Low      | None  | Fire Marshal Coordinated response with Steve Morris of DEQ and VDACs   | Yes      |
| Cynthia Kemp  | Discharge to stormwater ditch   | Bruce Estates                   | 7225 Ann Cabell Lane                              | MJD      | 5/31/2012     | 05/31/2012     | 5/31/2012     | Low      | None  | Contacted Atlantic Plumbing who was working with VDOT to clean out storm sewer. Resolved issue with company and Marshall Winn of VDOT  | Yes      |
| <b>FY2013</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Whitney Robertson, Public Utilities                     | Water and grease stains behind restaurant   | Northcross Shopping Center      | 10180 Lakeridge Parkway                           | MJD      | 11/21/2012    | 11/21/2012     | 11/30/2012    | Low      | Letter sent to property owner and restaurant.   | Management company with shopping center to clean pavement and collect cleaning water for disposal. Wash water to be collected and disposed at RECO.  | No       |
| Whitney Robertson, Public Utilities                     | Odor rom Storm Sewer  |                                 | 10040 Sliding Hill Road                           | MJD      | 1/14/2013     | 1/14/2013      | 1/14/2013     | Low      | Mnone   | Feel that the odor is from sanitary main in the area.  | No       |
| David Taylor  | Poor farm Park Potential Illicit Discharge  |                                 |   | MJD      | 3/4/2013      | 3/4/2013       | 3/4/2013      | Low      | None  | For Waterline Floshing   | No       |
| Private Citizen   | Yard Debris in the Street   | Hanover Farms                   | Entrance  | MJD      | 4/23/2013     | N/A            | 4/23/2013     | Low      | None  | Referred to VDOT   | Yes      |
| Pub Works   | Car Wash  | Bojangles                       | 9330 Allee Rd                                     | MJD      | 9/8/2013      | NA             | 10/3/2013     | Low      | None  | NOV Letter Sent  | Yes      |
| Pub Works   | Car Wash  | Fas Mart                        | 9202 Chamberlayne Rd                              | MJD      | 9/29/2013     | NA             | 10/3/2013     | Low      | None  | NOV Letter Sent  | Yes      |
| <b>FY2013</b>   |   |                                 |   |          |               |                |               |          |   |  |          |
| Kings Charter HOA                                       | Dumping /rinse from painting into storm drain (latec)   | Kings Charter                   | 10366 Aspen Grove Terrace                         | MJD      | 9/18/2013     | 10/9/2013      | 10/9/2013     | Low      | None  | Spoke to and sent letter to home owner advising of proper disposal of paint and proper clean up form painting.   | Yes      |
| John saunders   | Rick Tire and Auto dischare to public sewer   | NA                              | 9004 Shady Grove Road                             | MJD      | 10/23/2013    | 10/29/2013     | 11/4/2012     | low      | NOV   | NOV letter sent. owner agreed to stop discharge  | Yes      |

## **Appendix H - E&S Certifications**

| #  | Last Name   | First Name | Certification Type     | Certification # | Expiration Date | Dept |
|----|-------------|------------|------------------------|-----------------|-----------------|------|
| 1  | Ashley      | Brad       | Inspector              | 5362            | 5/31/2017       | PW   |
| 2  | Breckenkamp | Bob        | Combined Administrator | 163             | 11/30/2014      | PW   |
| 3  | Cornwell    | Jared      | Combined Administrator | 548             | 5/31/2015       | PW   |
| 4  | Dieter      | Mike       | Combined Administrator | 550             | 5/31/2015       | PW   |
| 5  | Duffy       | John       | Combined Administrator | 742             | 5/31/2017       | PW   |
| 6  | Duvall      | J.D.       | Inspector              | 3643            | 5/31/2016       | BI   |
| 7  | Eutsey      | Mike       | Plan Review Technician | 6165            | 11/30/2016      | BI   |
| 8  | Flagg       | Mike       | Combined Administrator | 160             | 5/31/2017       | PW   |
| 9  | Gentilini   | Brian      | Inspector              | 5592            | 5/30/2015       | BI   |
| 10 | Germain     | Larry      | Inspector              | 3271            | 11/30/2014      | BI   |
| 11 | Hardman     | Randy      | Combined Administrator | 146             | 5/31/2017       | PW   |
| 12 | Huffman     | Wayne      | Inspector              | 792             | 11/30/2014      | PW   |
| 13 | Kramer      | Scott      | Combined Admisistrator | DCA0101         | 9/12/2017       | PW   |
| 14 | Marchetti   | Andy       | Inspector              | 2884            | 11/30/2016      | BI   |
| 15 | Mease       | Alex       |                        |                 |                 |      |
| 16 | Myers       | Al         | Combined Administrator | 569             | 5/31/2015       | PW   |
| 17 | Newsome     | Warren     | Inspector              | 6184            | 11/30/2016      | BI   |
| 18 | Saunders    | John       | Combined Administrator | 6259            | 11/30/2016      | PW   |
| 19 | Shurley     | Jay        | Inspector              | 2824            | 11/30/2016      | BI   |

**Appendix I - Stormwater BMP Summary**  
**See Attached Spreadsheet MS Excel File**

## **Appendix J - Recycling and Earth Day Announcements**

**BOARD OF SUPERVISORS**

**SEAN M. DAVIS, CHAIRMAN**  
HENRY DISTRICT

**WAYNE T. HAZZARD, VICE-CHAIRMAN**  
SOUTH ANNA DISTRICT

**ANGELA KELLY-WIECEK**  
CHICKAHOMINY DISTRICT

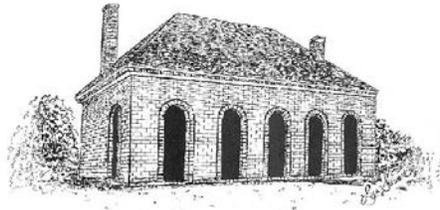
**W. CANOVA PETERSON**  
MECHANICSVILLE DISTRICT

**AUBREY M. STANLEY**  
BEAVERDAM DISTRICT

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

**ELTON J. WADE, SR.**  
COLD HARBOR DISTRICT

**NEWS RELEASE**  
**For Immediate Release**  
**April 10, 2014**



*HANOVER COURTHOUSE*

**HANOVER COUNTY**

ESTABLISHED IN 1720

**CECIL R. HARRIS, JR.**  
COUNTY ADMINISTRATOR

**JOHN A. BUDESKY**  
DEPUTY COUNTY ADMINISTRATOR

**FRANK W. HARKSEN, JR**  
DEPUTY COUNTY ADMINISTRATOR

**JAMES P. TAYLOR**  
DEPUTY COUNTY ADMINISTRATOR

WWW.CO.HANOVER.VA.US

P.O. Box 470, HANOVER, VA 23069  
7516 COUNTY COMPLEX ROAD, HANOVER, VA 23069

PHONE: 804-365-6005  
FAX: 804-365-6234

**Contact: Tom Harris**  
**Public Information**  
**804-365-6402**

**HANOVER COUNTY TO HOLD SPECIAL RECYCLING EVENT ON APRIL 25**

Hanover County will get into the spirit of "Earth Day" by holding a special recycling event at the Mechanicsville Solid Waste Center on Saturday, April 26, from 10 a.m. to 2 p.m.

During this event, Hanover County residents can bring for free recycling:

- Electronic ('e-waste')
- Household hazardous waste;
- Personal information or documents to be shredded;

Also, expired, unwanted or un-used prescription drugs will be collected by the Sheriff's Department as part of the second National Take Back Initiative, being conducted by the Drug Enforcement Administration in conjunction with state and local law enforcement agencies across the country.

There is no charge to dispose of the "e-waste" (except televisions, which cost \$7) or personal documents. For liquids, aerosols and solids which are classified as household hazardous wastes, there will be no charge but a 5 gallon limit. These are based on container size. Examples of materials are: flammables, organic liquids, aerosols, oxidizers pesticides, herbicides and corrosive liquids and solids including: pool, hot tub and spa chemicals, household cleaners, muriatic acid, acetic acid, drain openers, oven cleaners, grease and rust removers, glues, mold and mildew removers, art and hobby supplies and photographic chemicals. There will be no paints accepted at this event. Mercury thermometers and switches will also be accepted.

**Only checks will be accepted.**

No paints, batteries, tube fluorescent light bulbs, explosives or radioactive materials will be accepted.

Up to four boxes (10" by 12" by 18") of documents will also be accepted for shredding.

This event is for Hanover County residents only (ID required). No businesses will be permitted. No out-of-county materials will be accepted.

'E-waste' items accepted at no charge will include computers, computer accessories (cables, wires, keyboards, mice, speakers, etc.), printers, scanners, copiers, fax machines, telephones & cell phones, VCRs, camcorders, stereos, microwaves.

For more information call the Department of Public Works at 365-6181.

For more information about recycling and other solid waste issues in Hanover, visit [www.co.hanover.va.us/works/default.htm](http://www.co.hanover.va.us/works/default.htm).

###

**BOARD OF SUPERVISORS**

**SEAN M. DAVIS, CHAIRMAN**  
HENRY DISTRICT

**WAYNE T. HAZZARD, VICE-CHAIRMAN**  
SOUTH ANNA DISTRICT

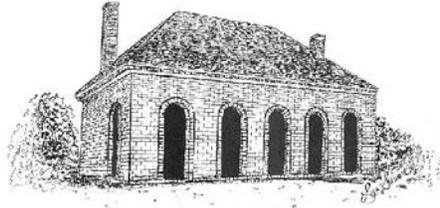
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**W. CANOVA PETERSON**  
MECHANICSVILLE DISTRICT

**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

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P.O. Box 470, HANOVER, VA 23069  
7516 COUNTY COMPLEX ROAD, HANOVER, VA 23069

PHONE: 804-365-6005  
FAX: 804-365-6234

**NEWS RELEASE**  
**For Immediate Release**  
**May 8, 2014**

**Contact: Tom Harris**  
**Public Information**  
**804-365-6402**

**HANOVER COUNTY TO RECYCLE HOUSEHOLD HAZARDOUS WASTE ON MAY 31**

Hanover County will offer free recycling for household hazardous waste at the Mechanicsville Solid Waste Center on Saturday, May 31, from 10 a.m. to 2 p.m.

Household hazardous waste collected at this event will include corrosives, herbicides, pesticides, flammables, aerosols, pool or hot tub chemicals, household cleaners and acids.

For liquids, aerosols and solids which are classified as household hazardous wastes, there is a 5-gallon limit based on container size.

Mercury thermometers and switches will also be accepted.

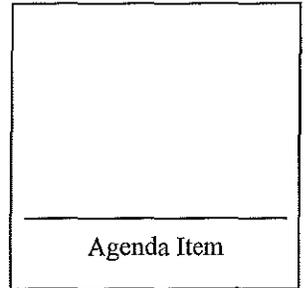
No paints, batteries, tube fluorescent light bulbs, explosives or radioactive materials will be accepted.

This event is for Hanover County residents only (ID required). No businesses will be permitted. No out-of-county materials will be accepted.

For more information call the Department of Public Works at 365-6181.

###

## **Appendix K - Schools MOU**



**County of Hanover**

**Board Meeting: February 12, 2014**

**Subject:** Approval of Updated Memorandum of Understanding – Department of Public Works - Agreement between Hanover County and Hanover County School Board, Municipal Separate Storm Sewer System (MS4) Permit

**Summary of Agenda Item:** On February 13, 2013 the Board of Supervisors authorized the execution and filing of a general permit (No. VAR040012) registration statement for Small Municipal Separate Storm Sewer Systems (MS4) for Hanover County. This registration statement and permit covers a five year period beginning July 1, 2013. This permit is required by state and federal law as mandated by section 402 of the Federal Clean Water Act. This requirement is intended to reduce to the “maximum extent possible” sources of pollution runoff from land use such as residential, commercial developments and public lands, vehicles, equipment and urban nonpoint sources of pollution. The permit now includes special provisions for Total Maximum Daily Loads including the Chesapeake Bay.

Changes in the new permit necessitate updating of the current MOU with the School Board. During the previous general permit cycle, the Department of Public Works and School Board staff identified the need to formalize certain relationships between the County and School Board. A Memorandum of Understanding (MOU) was approved and executed to formalize the School Board’s relationship with the County’s MS4 permit in 2011. The MOU addresses responsibilities under the permit and establishes a framework for collaboration and sharing of resources to implement the current terms of the MS4 permit.

The attached updated MOU has been reviewed and approved by the Department of Public Works, School Board Staff and the County Attorney’s Office. This agreement will be approved by the School Board prior to execution.

**County Administrator’s Recommendation Board Motion:** Motion to approve the updated Memorandum of Understanding between Hanover County and the Hanover County School Board and authorize the County Administrator to take all actions necessary to implement the agreement.

# MEMORANDUM OF UNDERSTANDING

between

HANOVER COUNTY

and

HANOVER COUNTY SCHOOL BOARD

This Memorandum of Understanding (MOU) is entered into by Hanover County, a political subdivision of the Commonwealth of Virginia (“the County”) and the Hanover County School Board (“School Board”) (collectively the “Parties”). The purpose of this agreement is to set out the understandings of the Parties with regard to compliance with the Municipal Separate Storm Sewer System (MS4) permitting program under Hanover County’s General Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems, #VAR040012 (“the general permit”).

## RECITALS

The MS4 permit is administered by the County according to the provisions of the general permit, 9 VAC 25-890-40. The permit is administered at the state level by the Virginia Department of Environmental Quality (DEQ) according to the requirements of 40 CFR 122 and associated federal laws, policies and regulations derived from the Clean Water Act.

The terms of the general permit include special conditions for incorporating total maximum daily loads (TMDL) other than the Chesapeake Bay TMDL. These provisions require the County to develop and implement TMDL action plans for pollutant reductions allocated to the MS4.

The terms of the general permit include a special condition for the Chesapeake Bay TMDL. These provisions require the County to develop and implement a Chesapeake Bay TMDL action plan to reduce pollutants according to the provisions of Virginia’s Phase I and Phase II Watershed Implementation Plan (WIP).

The terms of the general permit require the County to update its MS4 program plan and implement the plan according to the schedule provided in the general permit. The schedule requires the submission of various plans to address the six minimum control measures as follows:

- Public education and outreach on stormwater impacts.
- Public involvement and participation.
- Illicit discharge detection and elimination.

- Construction site stormwater runoff control.
- Post-construction stormwater management in new development and redevelopment.
- Pollution prevention and good housekeeping for municipal operations.

The MS4 program plan must identify measurable goals designed to address the six minimum control measures. The goal of this MOU is to fully implement the MS4 program plan with respect to School Board property and cooperatively address the requirements of the general permit.

## AGREEMENT

For mutual benefits the Parties agree to cooperate according to the procedures outlined in this agreement to meet the requirements of the general permit.

### 1. The County agrees to:

- a. Serve as the permittee for the implementation of the MS4 general permit.
- b. Develop appropriate materials in cooperation with the School Board as required under the general permit or as may be required by DEQ or the Environmental Protection Agency (EPA) including, but not limited to permit registration materials and MS4 program plan updates and documentation, TMDL action plans, annual reports, guidance, policies, inspection records, monitoring records, and ordinances.
- c. Implement the requirements of the MS4 program in cooperation with the School Board.
- d. Maintain information on all outfalls on School Board property within the MS4 program area and perform dry weather inspections of all outfalls, to report any deficiencies noted during the inspections or suspected illicit discharges to School Board administration, and cooperate with the School Board for resolution.
- e. Map outfalls on School Board property within the MS4 program area (the areas of the County which are regulated).
- f. Maintain information on all stormwater basins on School Board property within the MS4 area, perform inspections of all such stormwater basins, report to the School Board administration any deficiencies noted during the inspections, and cooperate with the School Board for resolution.
- g. Work cooperatively with the School Board to develop good housekeeping and pollution prevention policies and guidance as needed to ensure there is no illicit discharge.
- h. Identify the County personnel who are responsible for implementation of the MS4 program to serve as contact points and be responsible for implementation of the MS4 general permit on behalf of the County.

2. The School Board agrees to:

- a. Implement the MS4 program plan and TMDL action plans for all School Board property located within the MS4 program area.
- b. Assist with the development of materials and policies as may be required under the provisions of the MS4 general permit as they apply to all School Board property located within the MS4 program area.
- c. Implement MS4 policies as applicable in cooperation with the County.
- d. Correct any deficiencies noted through facility inspections, outfall inspections and stormwater basin inspections.
- e. Coordinate access of County personnel to School Board property sites for the purpose of implementation of the MS4 general permit.
- f. Implement pollution prevention and good housekeeping policies and guidance, and develop and implement other policies as needed to ensure that there are no illicit discharges.
- g. Identify School Board personnel responsible for implementation of the MS4 program who will serve as contact points and will be the responsible parties for the School Board with respect to implementation of the MS4 general permit on School Board property.

3. The Parties agree that key activities for compliance are the following:

- Public education and outreach on stormwater impacts.
  - The County and the School Board will cooperate regarding development and implementation of educational activities that are intended to address stormwater pollution.
- Public involvement and participation.
  - According to the schedule in the general permit, the County is required to reevaluate program goals and practices and update the MS4 program plan. The County and the School Board will cooperate in this process.
  - A current copy of the MS4 program plan and copies of annual reports are available on the County website.
- Illicit discharge detection and elimination.
  - The County will inspect School Board property to assess litter and potential stormwater pollutants that may result from stored containerized trash.
  - The County will perform dry weather monitoring at stormwater outfalls on School Board property. The School Board will maintain stormwater outfalls in a compliant condition based on the results of the inspections.
- Construction site stormwater runoff control.
  - The School Board will obtain applicable local, state and federal permits and approvals for construction activities on School Board property. The County will

provide technical assistance and regulatory oversight as required for all proposed construction activities.

- Post-construction stormwater management in new development and redevelopment.
  - The County will inspect stormwater basins on School Board sites. The School Board will maintain basins in a compliant condition based on the results of the inspections.
- Pollution prevention/good housekeeping for government operations.
  - The Parties will cooperate in the development and implementation of policies and guidance for pollution prevention and good housekeeping of facilities. Those efforts may include development of the following:
    - Vehicle Washing Guidelines
    - Illicit Discharge Guidance
    - Materials Management Policy
    - Nutrient Management Plans
    - Stormwater Pollution Prevention Plans

**HANOVER COUNTY SCHOOL BOARD**

3.7.14  
Date

By: Janelle S. Wilson (SEAL)  
Janelle S. Wilson  
Superintendent of Schools

**HANOVER COUNTY**

2.19.2014  
Date

By: Frank W. Harksen, Jr. (SEAL)  
Frank W. Harksen, Jr.  
County Administrator/Deputy County Administrator

## **Appendix L - Program Approvals**

Douglas W. Domenech  
Secretary of Natural Resources



David A. Johnson  
Director

**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

900 E. Main Street, 8<sup>th</sup> Floor, Pocahontas Building  
Richmond, Virginia 23219-3558  
Phone: (804) 225-3440 TOLL-FREE/TDD: 1-800-243-7229  
FAX: 804-225-3447 WEBSITE: [www.dcr.virginia.gov](http://www.dcr.virginia.gov)

December 17, 2012

Mr. Cecil R. Harris, Jr.  
County Administrator  
Hanover County  
7516 County Complex Road  
Hanover, Virginia 23069

Dear Mr. Harris:

On December 11, 2012, the Virginia Soil and Water Conservation Board conducted a compliance evaluation for Hanover County's Chesapeake Bay Preservation Act program for consistency with the Chesapeake Bay Preservation Act and Regulations. I am pleased to report that the Board found the County's Chesapeake Bay Preservation Act program to be fully compliant with the Chesapeake Bay Preservation Act and Regulations.

We appreciate the County's cooperation in undergoing a compliance evaluation of its local program and look forward to continuing to work to ensure that its Chesapeake Bay Preservation Act program continues to be compliant with the Act and Regulations. This letter also serves to formally make you aware that if you wish to appeal the Board's decision, Rule 2A:2 of the Supreme Court of Virginia allows 33 days from receipt of this letter for you to file a notice of appeal.

As always, if you have any questions or if we can be of any assistance, please contact your liaison, Ms. Shawn Smith at (804) 346-4081.

Sincerely,

A handwritten signature in blue ink that reads "David A. Johnson".

David A. Johnson

c: Mr. J. Michael Flagg, Director of Public Works, Hanover County  
Robert Bennett, Acting Director, Division of Stormwater Management, DCR  
Virginia Snead, P.E., Manager, Office of Regulatory Programs, DCR  
John R. McCutcheon, Training and Certification Program Manager, DCR  
Joan Salvati, Program and Guidance Development, DCR  
Shawn Smith, Principal Environmental Planner, DCR



Douglas W. Domenech  
Secretary of Natural Resources



David A. Johnson  
Director

**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

203 Governor Street  
Richmond, Virginia 23219-2010  
(804) 786-1712

December 17, 2012

Mr. Cecil R. Harris Jr.  
Hanover County Administrator  
Government Administration Building  
7516 County Complex Road  
Hanover, VA 23069

Re: Hanover County Erosion and Sediment Control Program

Dear Mr. Harris:

In response to information presented to the Virginia Soil and Water Conservation Board by the Department of Conservation and Recreation Staff on December 11, 2012, The Board approved the following motion:

“The Virginia Soil and Water Conservation Board commends Hanover County for successfully implementing the County’s Erosion and Sediment Control program to be fully consistent with the requirements of the Virginia Erosion and Sediment Control Law and Regulations, thereby providing better protection for Virginia’s soil and water resources.”

We congratulate Hanover County on this substantial accomplishment and recognize the County’s efforts to proactively protect Virginia’s soil and water resources through implementation of effective erosion and sediment control.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Bennett".

Robert Bennett, P.E.  
Acting Director, Division of Stormwater Management

cc: J. Michael Flagg, Director of Public Works  
Shawn Smith, Principal Environmental Planner  
Jacob Bauckman, DCR Stormwater Management Compliance Specialist  
Darryl Glover, DCR Acting Richmond Regional Manager  
Kenneth Harper, DCR Local Program Compliance Coordinator





COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

TDD (804) 698-4021

www.deq.virginia.gov

Douglas W. Domenech  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4020  
1-800-592-5482

July 1, 2013

Frank W. Harksen, Jr, Deputy County Administrator  
Hanover County  
PO Box 470  
Hanover, Virginia 23069

RE: General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems  
General Permit No. VAR040012  
Hanover County

Dear Permittee:

Department staff has reviewed your Registration Statement and determined that the referenced Municipal Storm Sewer System (MS4) is hereby covered under the General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems. The effective date of your coverage under this general permit is July 1, 2013, or the date of this letter, whichever is later. The enclosed copy of the general permit contains the applicable reporting requirements and other conditions of coverage.

During its 2013 Legislative Session, the General Assembly passed Chapters 756 (HB2048) and 793 (SB1279) which moved several programs from the Virginia Department of Conservation and Recreation (DCR) to the Virginia Department of Environmental Quality (DEQ). As a result of this legislative change, the General Assembly transferred the administration and oversight of the General Permit for Discharges from Small Municipal Separate Storm Sewer Systems from DCR to DEQ. Please submit future permit correspondence and your annual MS4 program reports to the DEQ Piedmont Regional Office at the following address:

DEQ Piedmont Regional Office  
4949-A Cox Road  
Glen Allen, VA 23060

The general permit will expire on June 30, 2018. The conditions of the permit require that you submit a new registration statement on or before April 1, 2018, if you wish to have continued coverage under the general permit.

If you have any questions about this letter or the general permit, please contact Ms. Emilee Adamson, Water Permits Manager, at (804) 527-5072 or [Emilee.adamson@deq.virginia.gov](mailto:Emilee.adamson@deq.virginia.gov).

Sincerely,

Melanie D. Davenport, Director  
Water Division

Enc. General Permit No. VAR040012

Cc. Emilee Adamson, DEQ-PRO

