

## **2.0 Permit Requirement**

### **E.3. Erosion and Sediment Control**

An acceptable erosion and sediment control program shall be maintained in accordance with the Environment Article, Title 4, Subtitle 1, Annotated Code of Maryland. At a minimum, Baltimore County shall:

- a. Address needed program improvements identified during MDE's evaluation of Baltimore County's application for the delegation of erosion and sediment control enforcement authority;
- b. At least three times per year, conduct "responsible personnel" certification classes to educate construction site operators regarding erosion and sediment control compliance. Program activity shall be recorded on MDE's "green card" database and submitted with the Baltimore County annual report; and
- c. Report quarterly information regarding earth disturbances exceeding one acre or more. Quarters shall be based on calendar year and submittals shall be made within 30 days following each quarter. The information shall be specific to the permitting activity for the preceding three months.

## **2.1 Introduction**

The Erosion and Sediment Control Program is implemented by DEPRM's Inspection and Enforcement Section. This program is periodically reviewed by the Maryland Department of the Environment (MDE) and has consistently met the review requirements. The 1994 Maryland Standards and Specifications Manual for Soil Erosion and Sediment Control are currently being revised by MDE for greater improvements to water quality. Baltimore County will adopt this manual when completed to stay in compliance with State regulatory changes. The current Erosion and Sediment Control Program contains several components:

- review of building and grading permit applications
- field inspection and enforcement of grading and sediment control regulations
- citizen complaint investigation, and
- training program for certification of responsible personnel.

Baltimore County has been given the authority to enforce sediment control regulations by the State of Maryland. The main function of the Erosion and Sediment Control Program is to reduce pollutant loads from new development and redevelopment during the construction phase. This goal is achieved using sediment control best management practices (BMPs) as specified in the sediment and erosion control plan for each development site. Sediment control plans are required for any construction activity disturbing an area greater than 5,000 square feet. The standard plan for Sediment and Erosion Control is used for residential construction activity disturbing less than 30,000 sq. ft. and for all other construction activity disturbing less than 20,000 sq. ft.

**2.2 Program Analysis - Plans Review**

Currently, Sediment and Erosion Control Plans are reviewed for adequacy by the Baltimore County Soil Conservation District while DEPRM’s Stormwater Management Section coordinates the approval process. The Sediment and Erosion Control Plans are also reviewed by DEPRM’s Environmental Impact Review Section to ensure that there is no encroachment on the forest buffers or forest conservation areas that are protected by County regulations.

Each Sediment and Erosion Control Plan is required to have an associated Grading Plan indicating the final topographic contours of the development site. The Grading Plans are reviewed by DEPRM and the Baltimore County Soil Conservation District.

**2.3 Program Analysis - Inspection and Enforcement**

The Inspection and Enforcement Section maintains records of issued grading permits, conducts routine inspections of active construction sites, and issues correction notices, violation notices, and stop work orders to enforce compliance of sediment and erosion control and grading plans. Prior to the issuance of grading permits, a pre-construction meeting is held at the site. This meeting is attended, at a minimum, by the DEPRM inspector and the construction site foreman. The foreman must be certified through the “responsible personnel in erosion and sediment control” training program which is described in section 2.4. The meeting covers the sequence of operations for the grading involved with the overall site development. This meeting is intended to forestall any future problems.

*2.3.1 Grading and Building Permits Issued*

Grading permits and building permits are reviewed by DEPRM. Grading Permits are required for any disturbance over 5,000 square feet or for grade changes in existing neighborhoods.

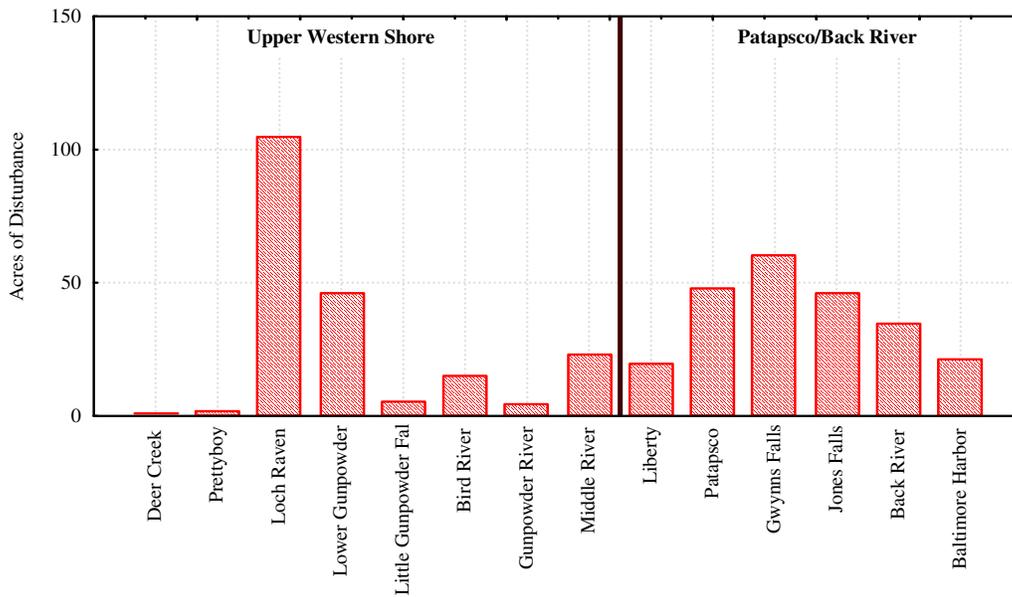
Baltimore County building permits are required for any new construction, additions, or alterations. This Department reviews building permits, to ensure that the final drainage patterns will not impact adjacent properties and that the onsite drainage will direct stormwater away from building structures and to stormwater management facilities. These permits are also reviewed to ensure that they are in compliance with other environmental regulations, such as, Critical Area requirements and Forest Buffer requirements.

During the calendar year 2009, one hundred and eighty-five (185) grading permits were issued. This represents a decrease in the number of grading permits from the previous year and a significant decrease in the number of acres disturbed from 670 to 430 acres. This is the lowest acreage since reporting began in 1999. The number of grading permits approved and the acreage of disturbance are displayed by watershed in Table 2-1 and Figure 2-1. Except for the Loch Raven watershed, which is the county’s largest watershed, most of the grading permits are in watersheds with existing older communities.

**Table 2-1: Number of Grading Permits and Acreage of Disturbance by Watershed for 2009.**

Watershed	Number of Permits	Acreage of Disturbance
<b>Upper Western Shore</b>		
Deer Creek	0	0.0
Prettyboy Reservoir	2	1.7
Loch Raven Reservoir	25	104.5
Lower Gunpowder Falls	12	46.5

Little Gunpowder Falls	2	5.0
Bird River	10	15.5
Gunpowder River	3	4.3
Middle River	16	23.1
<b>UWS Totals</b>	<b>70</b>	<b>200.6</b>
<b>Patapsco/Back River</b>		
Liberty Reservoir	7	19.1
Patapsco River	25	47.8
Gwynns Falls	33	60.3
Jones Falls	13	45.8
Back River	27	34.6
Baltimore Harbor	10	21.6
<b>Patapsco/Back R. Totals</b>	<b>115</b>	<b>229.2</b>
<b>County Totals</b>	<b>185</b>	<b>429.8</b>



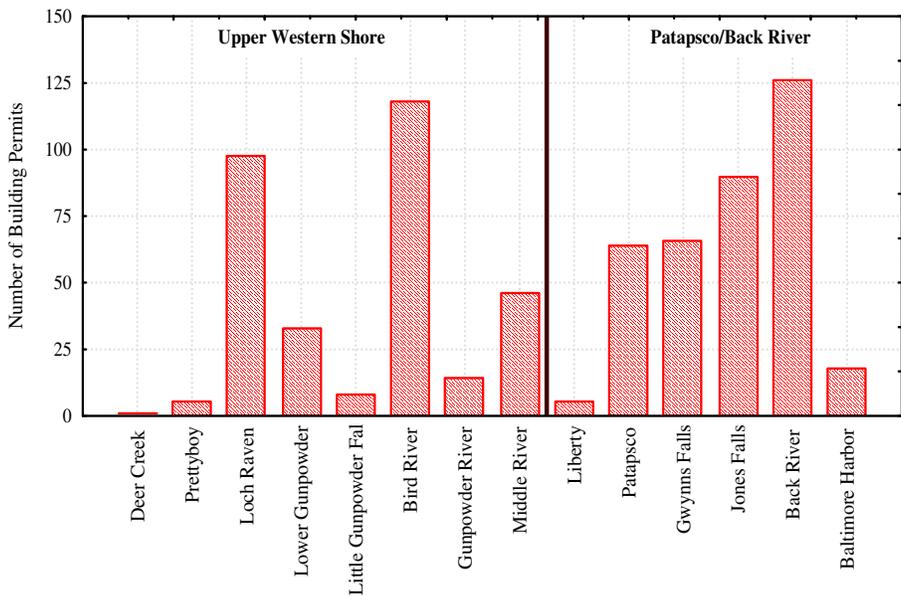
**Figure 2-1: Acres of disturbance through approved grading permits by watershed for 2009.**

During the calendar year 2009, 692 permits were released for new buildings. This is a continued decrease from last year's 848 building permits. Most likely this is a reflection of the poor economic climate. The distribution of building permits by watershed is displayed in Table 2-2 and Figure 2-2.

**Table 2-2: Number of Building Permits by Watershed Approved in 2009.**

Watershed	Number of Permits
<b>Upper Western Shore</b>	
Deer Creek	1
Prettyboy Reservoir	5
Loch Raven Reservoir	98
Lower Gunpowder Falls	33
Little Gunpowder Falls	8

Bird River	118
Gunpowder River	14
Middle River	46
<b>Upper Western Shore Totals</b>	<b>323</b>
<b>Patapsco/Back River</b>	
Liberty Reservoir	5
Patapsco River	64
Gwynns Falls	66
Jones Falls	90
Back River	126
Baltimore Harbor	18
<b>Patapsco/Back River Totals</b>	<b>369</b>
<b>County Totals</b>	<b>692</b>



**Figure 2-2: Number of building permits issued in 2009 by watershed.**

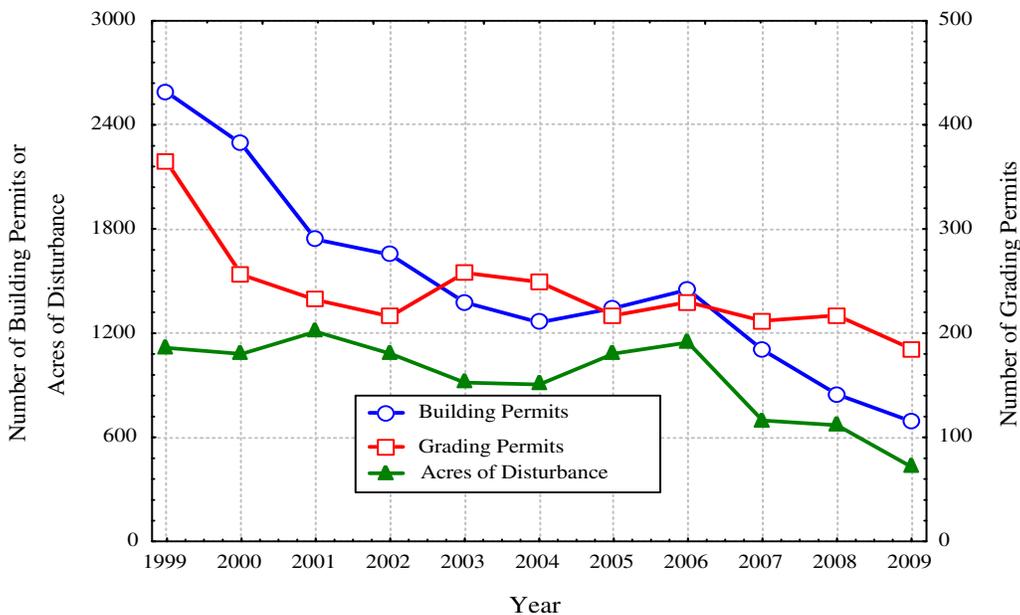
Displayed in Table 2-3 and Figure 2-3 are the trends in building and grading permits, as well as acres of disturbance for an eleven-year period. The data for the number of building permits was reevaluated based on a new data source available this year. The entire table was updated using the same data source. The data used for the building permits is now extracted from the data layer called “Landuse Permits”. Residential permits include single family and multi-family dwellings. The Other Building permits include institutional, commercial and industrial. Building permits were selected if they had an occupancy date in that year.

**Table 2-3: Number of Grading and Building Permits by Year**

<b>Year</b>	<b>Grading Permits</b>	<b>Acres of Disturbance</b>	<b>Residential Building Permits</b>	<b>Other Building Permits</b>	<b>Total Building Permits</b>
1999	364	1,115*	2,480	107	2,587

2000	256	1,081	2,148	143	2,291
2001	232	1,209	1,636	105	1,741
2002	216	1,093	1,548	105	1,653
2003	258	916	1,339	39	1,378
2004	249	905	1,159	103	1,262
2005	217	1,083	1,231	113	1,344
2006	230	1,147	1,349	101	1,450
2007	212	698	983	121	1,104
2008	217	670	743	105	848
2009	185	430	491	201	692

\*Excluding a single permit for 6,060 acres of disturbance associated with the Colonial Pipeline maintenance project.



**Figure 2-3: Approved Grading and Building Permits for the Period 1998 – 2009.**

Construction activities in Baltimore County have decreased in number and area of disturbance throughout the past ten years. Development has been purposefully directed towards existing urban areas within the County’s Urban Rural Demarcation Line (URDL). These areas are also classified as the County’s priority funding area and currently provide infrastructure and services such as: sewer, water, schools and an existing transportation network. The past year showed a drop in all development activity due to the very slow economy.

**2.3.2 Inspections, Complaints and Enforcement**

After construction begins, an inspector inspects the site an average of once every two weeks during the active constructive phase. Table 2-4 displays the number of inspections by month and type for the calendar year 2009. These inspections are also shown in Figures 2-4 and 2-5. The data are broken down into two categories, enforcement actions and inspections.

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Section 2 - Sediment Control**

In 2009, 1,042 enforcement actions were logged (Table 2-4, last column and Figure 2-4), and 12,716 inspections were logged (Table 2-4, seventh column and Figure 2-5). These numbers are relatively the same in comparison with the activities in 2008.

**Table 2-4: Sediment Control Inspection Data for 2009**

Month	Prelim.	Pre Constr.	S.C. Inspt.	Final Inspt.	Complaint	Total Inspt.	Correct. Notice	Stop Work Order	Written Orders	Totals Enforce
January	102	9	1,002	14	23	1,150	56	11	11	78
February	82	24	854	14	27	1,001	63	15	7	85
March	128	14	988	16	26	1,172	78	11	8	97
April	100	25	983	11	55	1,174	102	11	5	118
May	129	12	968	11	44	1,164	55	15	6	76
June	100	27	940	6	48	1,121	77	16	6	99
July	146	33	919	8	42	1,148	69	19	1	89
August	110	16	805	8	39	978	67	17	7	91
September	92	14	922	21	53	1,102	89	20	4	113
October	105	6	932	17	26	1,086	71	13	2	86
November	90	8	709	16	26	849	60	11	3	74
December	95	4	636	12	24	771	29	5	2	36
<b>Totals</b>	<b>1,279</b>	<b>192</b>	<b>10,658</b>	<b>154</b>	<b>433</b>	<b>12,716</b>	<b>816</b>	<b>164</b>	<b>62</b>	<b>1,042</b>

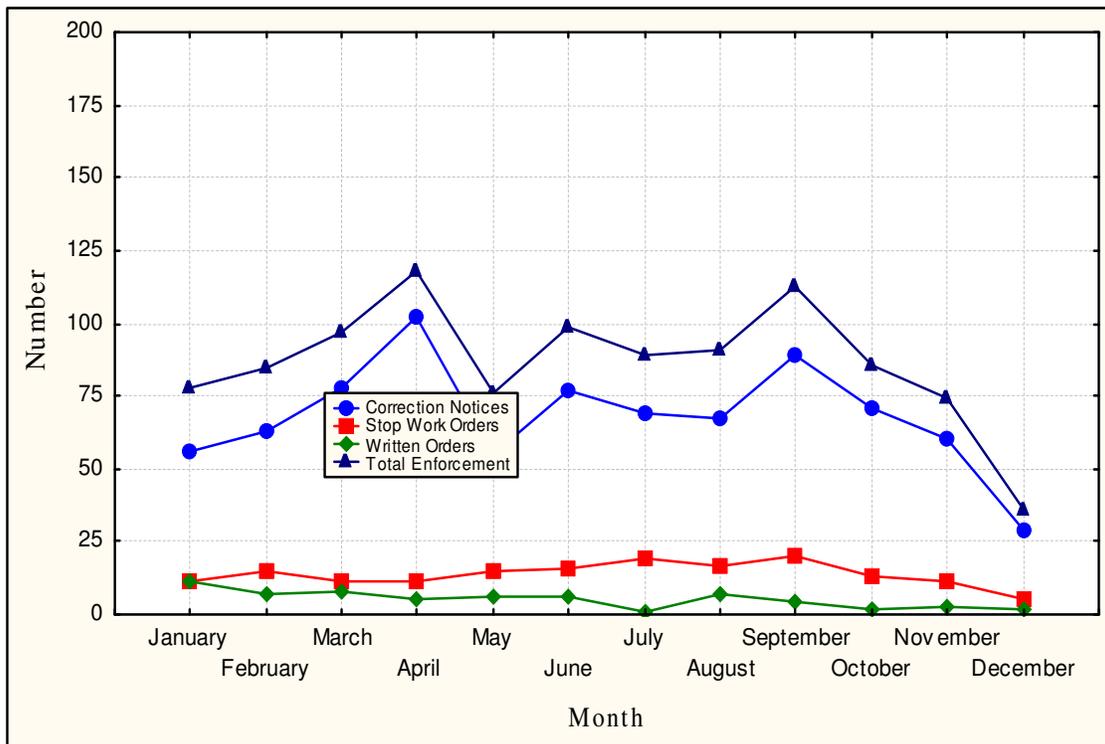


Figure 2-4: The number of sediment control enforcement actions by month for the calendar year 2009.

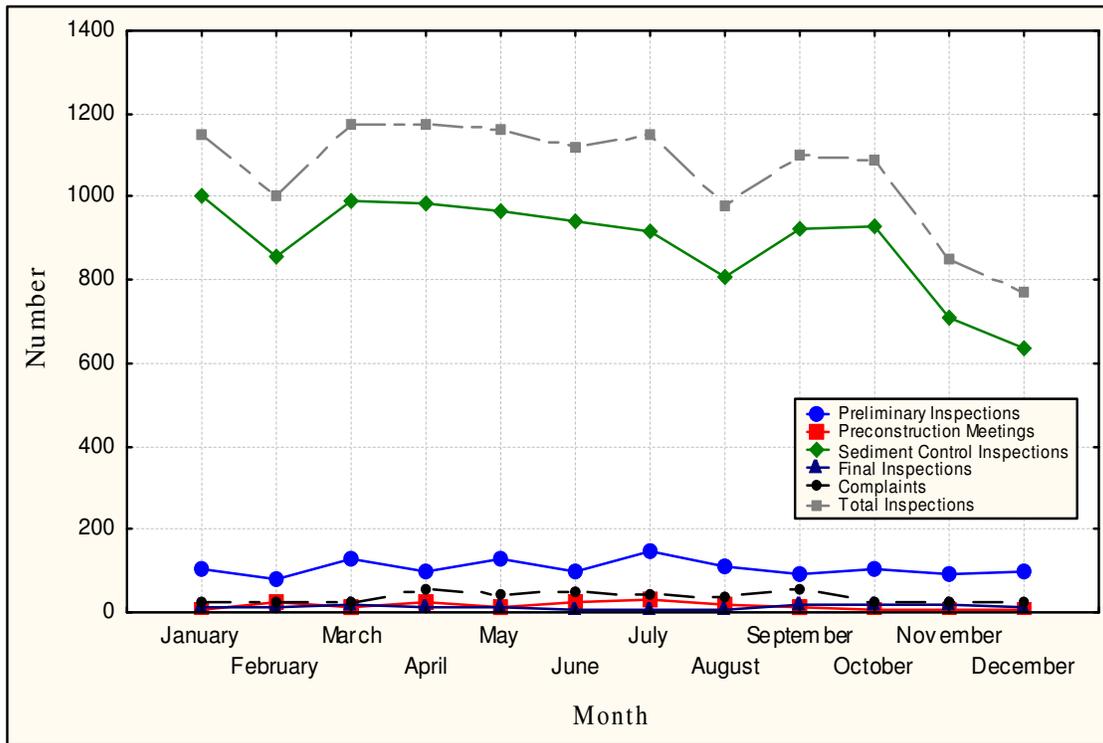


Figure 2-5: Number of sediment control inspections and the total number of inspections by month for the calendar year 2009.

Sediment controls are only seventy to ninety percent effective when they are properly installed and maintained. Therefore a successful sediment control inspection and enforcement program is essential for achieving maximum effectiveness.

### 2.4 Program Analysis - Training Program

Two (2) Responsible Personnel Certification training sessions were held in 2009: February 24, and March 23. Twenty five (25) people attended these sessions. A list of individuals receiving certification is presented in Appendix 2-1. The training program is offered to construction site operators in Baltimore County on an as-needed basis. Baltimore County maintains an interest list on file and offers the certification class when enrollment requests justify the need, thus a third training class was not held in 2009. The significant decrease in attendance reflects on the number unemployed in the current construction industry.

### 2.5 Summary

A decrease in new building permit applications for 2009 allowed more man hours to be devoted toward sediment control inspections of existing active projects.

In the fall of 2009, the Maryland Department of the Environment Water Management Administration conducted an Erosion and Sediment Control Program Evaluation of DEPRM’s Erosion and Sediment Control Program. DEPRM’s program received good marks in all categories and based on the effectiveness of Baltimore County’s program, continued delegation has been extended to June 30, 2012. The letter reaffirming delegation is in Appendix 2-2.

Additional changes to the program will be made as necessary. DEPRM will reapply for delegation no later than October 1, 2011.

**Appendix 2-1: List of Individuals Receiving Certification**

LASTNAME:	FIRSTNAME:	DATE:	CERTNUM:
BATCHELDER	CHARLES	02/24/2010	41094
BLEVINS	DANIEL	02/24/2010	41096
CRANDALL	STEVE	02/24/2010	41097
EMANUEL	RICHARD	02/24/2010	41098
ESSLINGER	REGINA	02/24/2010	41099
FLOWERS	DAVID	02/24/2010	41100
GALLAGHER	CATIE	02/24/2010	41101
GRIFFITH	ANDREW	02/24/2010	41102
LEWIS	HAROLD	02/24/2010	41103
METZBOWER	ADRIENNE	02/24/2010	41104
PAPE	DANIEL	02/24/2010	41105
SALIBA	GEORGE	02/24/2010	41106
SHAFER	RICHARD	02/24/2010	41107
SCHOFF	THOMAS	02/24/2010	41108
WISNIESKI	ERIN	02/24/2010	41109
BEAM	JOAN	02/24/2010	41095
ALLEGAR	JOSEPH	03/23/2010	41110
BAGLEY	JAMES	03/23/2010	41111
BRENDEL	JONATHON	03/23/2010	41112
GARDNER	ROBERT	03/23/2010	41113
HARRELL	MONTE	03/23/2010	41114
KERNS	JASON	03/23/2010	41115
MERKEL	GEORGE	03/23/2010	41116
SMITH	DESSELINE	03/23/2010	41117
THOMPSON	GEORGE	03/23/2010	41118

Appendix 2-2: Baltimore County Sediment Control Delegation Approval



Martin O'Malley, Governor  
Anthony D. Brown, Lieutenant Governor

Shari T. Wilson, Secretary  
Robert M. Summers, Ph.D., Deputy Secretary

JAN 28 2010

Jonas A. Jacobson, Director  
Baltimore County  
Department of Environmental Protection  
and Resource Management  
401 Bosley Avenue, Suite 416  
Towson, Maryland 21204

Dear Mr. Jacobson:

The Maryland Department of the Environment, Water Management Administration (MDE/WMA) has completed the review of Baltimore County's application for continued delegation of erosion and sediment control enforcement authority. I would like to thank you and your staff for their assistance during the review process. A copy of our evaluation is attached for your use.

Field inspection of active construction sites in Baltimore County found them to be in very good condition and in compliance with erosion and sediment control requirements. The County's inspection staff should be commended for their hard work and dedication. Effective erosion and sediment control is fundamental to our effort to protect local streams and restore the Chesapeake Bay. Based on the effectiveness of the County's program, I am pleased to grant your request for continued delegation of erosion and sediment control enforcement authority. This delegation of authority becomes effective July 1, 2010. Continuation beyond June 30, 2012 requires reapplication to MDE by October 1, 2011.

If you have any questions or comments regarding our review, please call me at (410) 537-3567 or have a member of your staff contact Mr. Raymond Bahr of the Sediment, Stormwater, and Dam Safety Program at (410) 537-3545.

Sincerely,

Jay G. Sakai, Director  
Water Management Administration

Enclosure

cc: Jim Ensor, District Manager, Baltimore County Soil Conservation District  
Michael Moorefield, Manager, Baltimore County Erosion and Sediment Control Program