

## **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 EPS’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 EPS’s Stormwater Management Section coordinates the approval process. The Sediment and Erosion Control Plans are also reviewed by EPS’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 EPS 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 EPS 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 EPS. 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, Chesapeake Bay Critical Area and Forest Buffer requirements.

During the calendar year 2010, one hundred and eighty-eight (188) grading permits were issued. This represents a negligible change in the number of grading permits from the previous year and in the number of acres disturbed from 430 to 447 acres. These past two years represent 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. Most of the grading activity in Baltimore County has shifted to watersheds with existing older communities.

Table 2-1: Number of Grading Permits and Acreage of Disturbance by Watershed for 2010.

Watershed	Number of Permits	Acreage of Disturbance
<b>Upper Western Shore</b>		
Deer Creek	2	10.07
Prettyboy Reservoir	2	5.87
Loch Raven Reservoir	18	10.96
Lower Gunpowder Falls	13	27.94
Little Gunpowder Falls	0	0
Bird River	11	46.64

Gunpowder River	3	30.96
Middle River	18	51.08
<b>UWS Totals</b>	<b>67</b>	<b>184.08</b>
<b>Patapsco/Back River</b>		
Liberty Reservoir	6	20.18
Patapsco River	17	19.60
Gwynns Falls	29	77.01
Jones Falls	20	56.97
Back River	36	46.54
Baltimore Harbor	16	42.85
<b>Patapsco/Back R. Totals</b>	<b>121</b>	<b>263.15</b>
<b>County Totals</b>	<b>188</b>	<b>447.23</b>

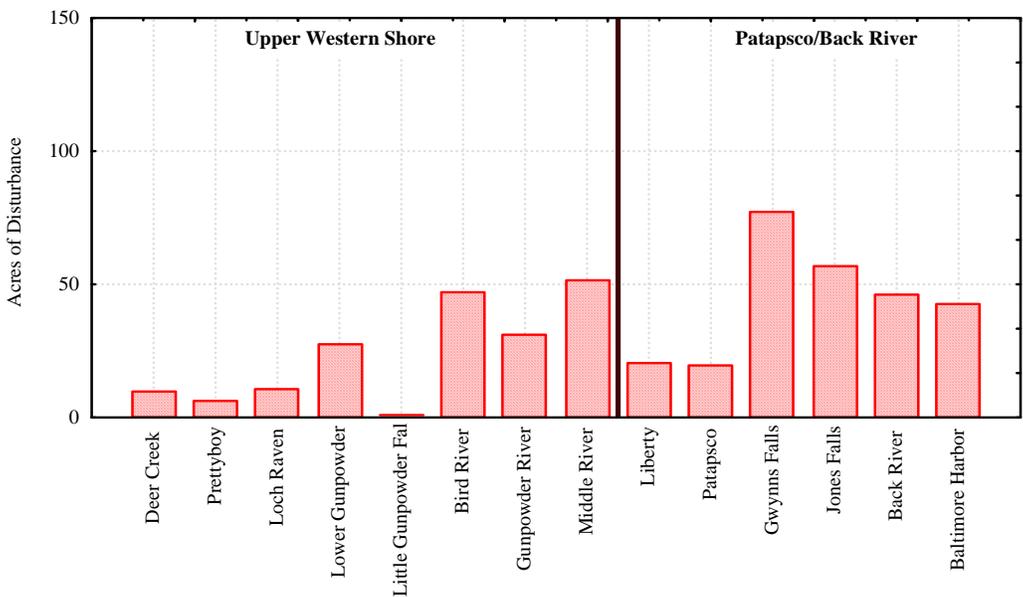


Figure 2-1: Acres of disturbance through approved grading permits by watershed for 2010.

During the calendar year 2010, 876 permits were released for new buildings. This represents a slight increase from last year and is similar to the amount of construction from a year ago when 848 building permits were issued. This number continues to reflect 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 2010.

Watershed	Number of Permits
<b>Upper Western Shore</b>	
Deer Creek	0
Prettyboy Reservoir	4
Loch Raven Reservoir	125
Lower Gunpowder Falls	36
Little Gunpowder Falls	8
Bird River	103
Gunpowder River	9

Middle River	52
<b>Upper Western Shore Totals</b>	<b>337</b>
<b>Patapsco/Back River</b>	
Liberty Reservoir	4
Patapsco River	119
Gwynns Falls	149
Jones Falls	123
Back River	101
Baltimore Harbor	43
<b>Patapsco/Back River Totals</b>	<b>539</b>
<b>County Totals</b>	<b>876</b>

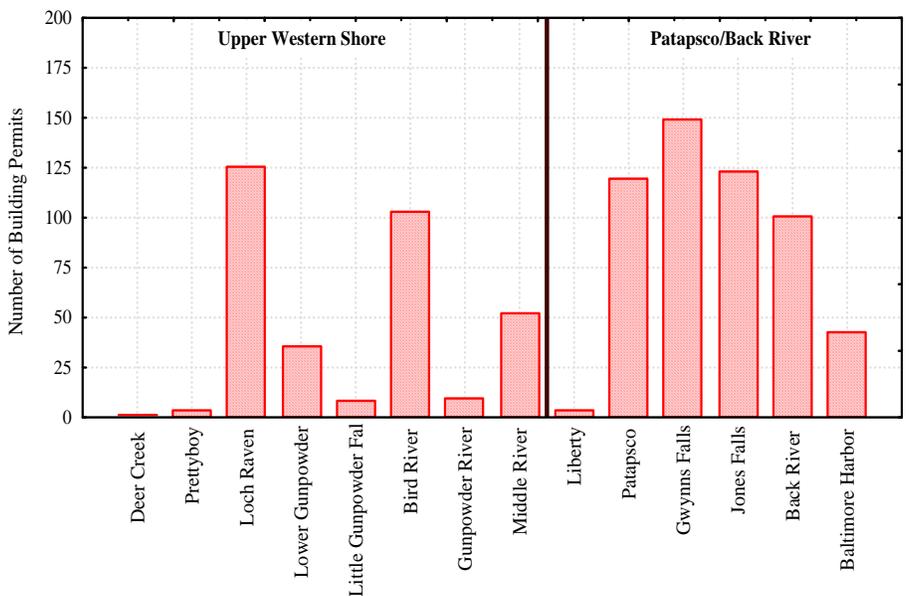


Figure 2-2: Number of building permits issued in 2010 by watershed.

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 last year based on a new data source. The entire table was updated in last year's report using this 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 only institutional, commercial and industrial. Building permits were selected if they had an occupancy date in that year and were issued for new construction.

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

Year	Grading Permits	Acres of Disturbance	Residential Building Permits	Other Building Permits	Total Building Permits
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
2010	188	447	500	376	876

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

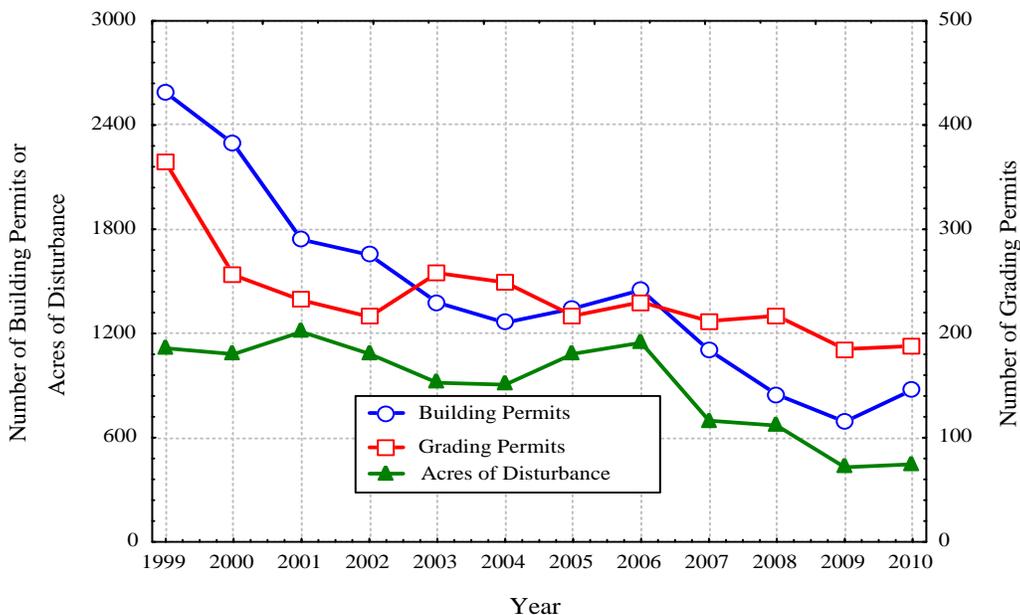


Figure 2-3: Approved Grading and Building Permits for the Period 1998 – 2010.

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 three years show 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 2010. These inspections are also shown in Figures 2-4 and 2-5. The data are broken down into two categories, enforcement actions and inspections.

In 2010, 711 enforcement actions were logged (Table 2-4, last column and Figure 2-4), and 11,354 inspections were logged (Table 2-4, seventh column and Figure 2-5). These numbers are

lower in comparison with the activities in 2009.

Table 2-4: Sediment Control Inspection Data for 2010

Month	Prelim.	Pre Constr.	S.C. Inspt.	Final Inspt.	Complaint	Total Inspt.	Correct. Notice	Stop Work Order	Written Orders	Totals Enforce
January	98	7	744	62	27	938	49	6	0	55
February	111	7	603	27	8	756	29	7	0	36
March	206	23	789	17	45	1,080	73	7	0	80
April	160	18	897	13	44	1,132	66	8	0	74
May	143	15	773	21	37	989	45	8	35	88
June	122	18	808	4	99	1,051	42	5	3	50
July	201	23	743	4	24	995	53	8	3	64
August	94	8	801	20	41	964	58	7	2	67
September	127	15	753	17	27	939	40	5	3	48
October	152	12	695	25	28	912	48	5	2	55
November	152	15	626	16	13	822	44	6	0	50
December	193	5	541	22	15	776	34	10	0	44
<b>Totals</b>	<b>1,759</b>	<b>166</b>	<b>8,773</b>	<b>248</b>	<b>408</b>	<b>11,354</b>	<b>581</b>	<b>82</b>	<b>48</b>	<b>711</b>

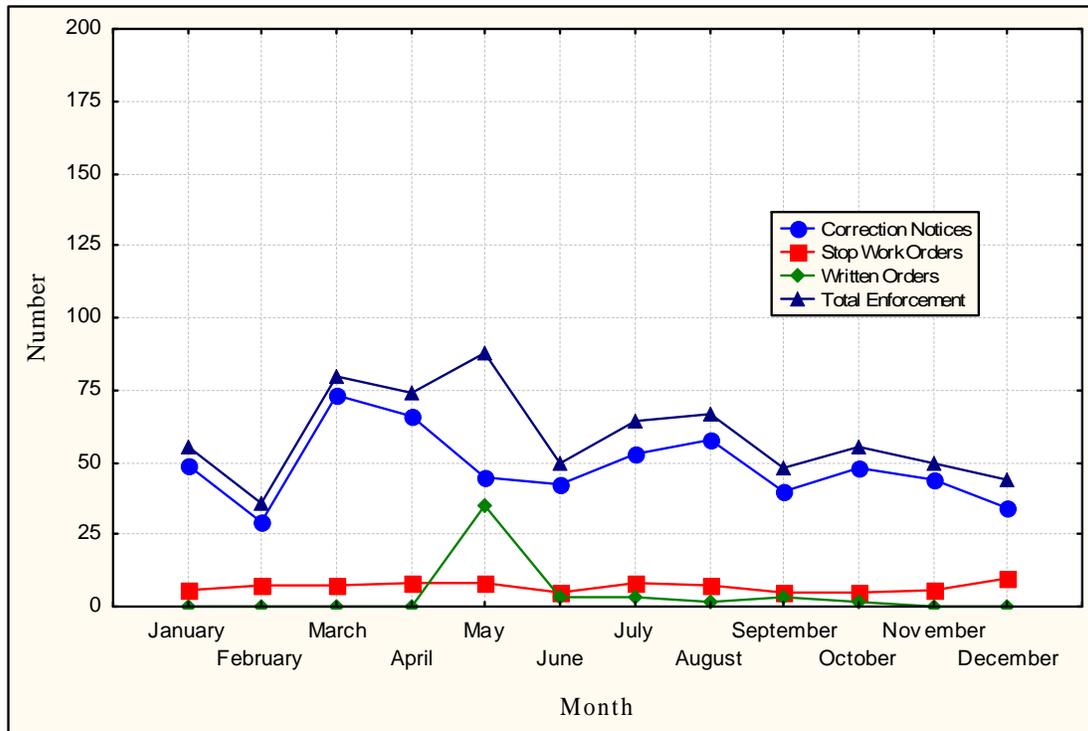


Figure 2-4: The number of sediment control enforcement actions by month for the calendar year 2010.

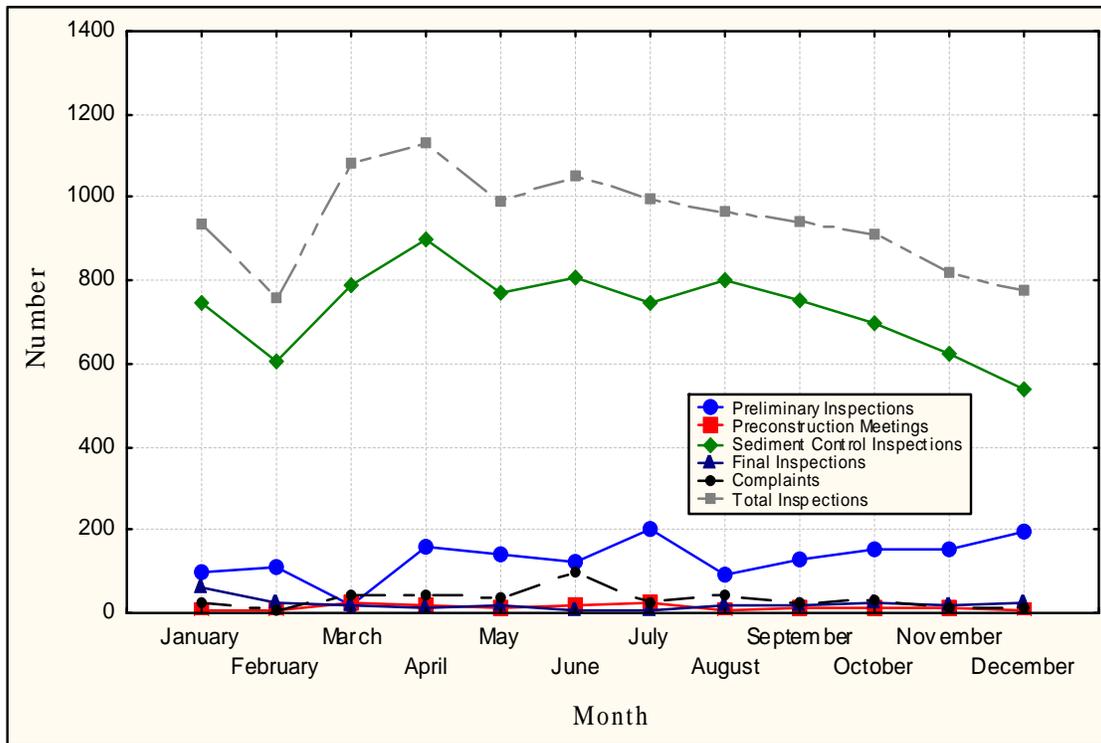


Figure 2-5: Number of sediment control inspections and the total number of inspections by month for the calendar year 2010.

Sediment controls are only seventy to ninety percent effective when they are properly installed and maintained. Therefore a successful sediment control 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 2010: 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 2010. The significant decrease in attendance reflects on the number unemployed in the current construction industry.

#### 2.5 Summary

The continued low number of new building and grading permit applications for 2010 has allowed more man hours to be devoted toward sediment control inspections of existing active projects.

The Maryland Department of the Environment Water Management Administration conducted an Erosion and Sediment Control Program Evaluation in 2009. EPS's program received good marks and delegation has been extended to June 30, 2012. Additional changes to the program will be made as necessary. EPS 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