

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 Sediment Control Program is implemented by DEPRM’s Inspection and Enforcement Section. This program is periodically reviewed by the Maryland Department of the Environment and has consistently met the review requirements. The 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 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 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 2006, two hundred and thirty (230) grading permits were issued. This represents an increase in the number of grading permits from two hundred and seventeen (217) in 2005, and the acreage of disturbance increased from 1,083 acres to 1,147 acres. The number of grading permits approved and the acreage of disturbance are displayed by watershed in Table 2-1 and Figure 2-1. The acreage of disturbance is greater for the Upper Western Shore watersheds than the Patapsco/Back River Basin watersheds. Approximately 153 acres representing 13% of the total acreage of disturbance occurred in the drainage areas of the three drinking water reservoir watersheds Prettyboy Reservoir (1.4 acres), Loch Raven (138.5 acres), and Liberty (12.9 acres). This disturbed acreage is down significantly from 20% last year. These watersheds comprise ~47 % of the drainage area in Baltimore County. The greatest change in disturbed area was in the Middle River and Lower Gunpowder watersheds. Baltimore County has been promoting redevelopment of the older communities within the Middle River watershed. This renaissance has finally come to fruition and is apparent by these building permit numbers. The increase in development in the Lower Gunpowder watershed is part of the White Marsh growth area, which extends north of the Bird River watershed and into the Lower Gunpowder watershed.

Table 2-1: Number of Grading Permits and Acreage of Disturbance by Watershed for 2006.

Watershed	Number of Permits	Acreage of Disturbance
Upper Western Shore		
Deer Creek	0	0
Prettyboy Reservoir	2	1.4
Loch Raven Reservoir	31	138.5
Lower Gunpowder Falls	15	170.1
Little Gunpowder Falls	2	1.8
Bird River	26	117.8
Gunpowder River	5	14.40
Middle River	15	249.5
UWS Totals	96	693.5
Patapsco/Back River		
Liberty Reservoir	4	12.90
Patapsco River	50	243.7
Gwynns Falls	22	46.2
Jones Falls	26	106.5
Back River	20	35
Baltimore Harbor	12	8.9
Patapsco/Back R. Totals	134	453.2
County Totals	230	1,146.70

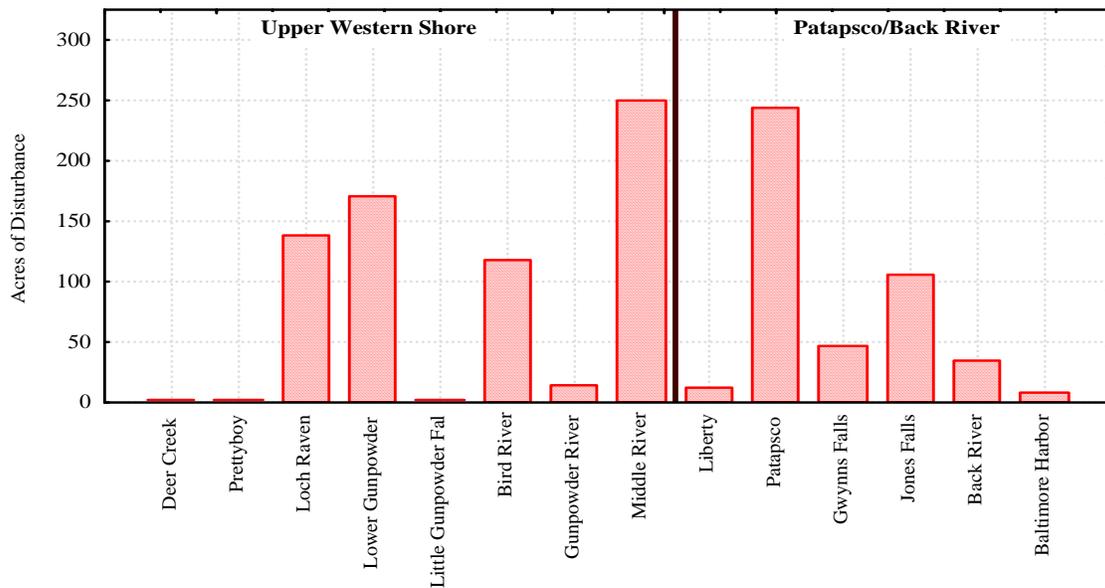


Figure 2-1: Acres of disturbance through approved grading permits by watershed for 2006.

During the calendar year 2006, 1,713 new residential building permits were issued. The distribution of building permits by watershed is displayed in Table 2-2 and Figure 2-2.

As indicated above, Baltimore County has two designated growth areas, Owings Mills in the Gwynns Falls watershed and Perry Hall/White Marsh in the Bird River and Lower Gunpowder Falls watersheds. These three watersheds accounted for 36% of the residential building permits

issued in the calendar year 2006. Back River watershed had the most building permits issued at 417.

Table 2-2: Number of Building Permits by Watershed Approved in 2006.

Watershed	Number of Permits
Upper Western Shore	
Deer Creek	5
Prettyboy Reservoir	28
Loch Raven Reservoir	125
Lower Gunpowder Falls	85
Little Gunpowder Falls	18
Bird River	333
Gunpowder River	25
Middle River	35
Upper Western Shore Totals	654
Patapsco/Back River	
Liberty Reservoir	23
Patapsco River	243
Gwynns Falls	211
Jones Falls	141
Back River	417
Baltimore Harbor	24
Patapsco/Back River Totals	1059
County Totals	1,713

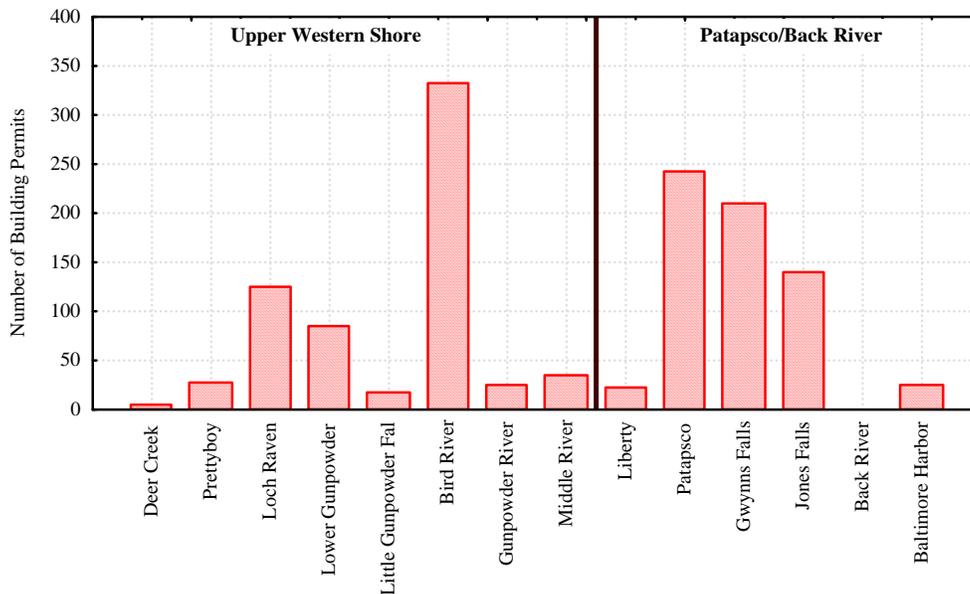


Figure 2-2: Number of building permits issued in 2006 by watershed.

Displayed in Table 2-3 and Figure 2-3 are the trends in building and grading permits, as well as acres of disturbance for a nine-year period. It shows a peak in 1999 followed by a gradual downward trend through 2002 and then a leveling off.

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

Year	Grading Permits	Acres of Disturbance	Building Permits
1998	256	1,173	2,705
1999	364	1,115*	2,747
2000	256	1,081	2,419
2001	232	1,209	1,869
2002	216	1,093	1,915
2003	258	916	1,708
2004	249	905	1,731
2005	217	1,083	2,085
2006	230	1,146.70	1,713

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

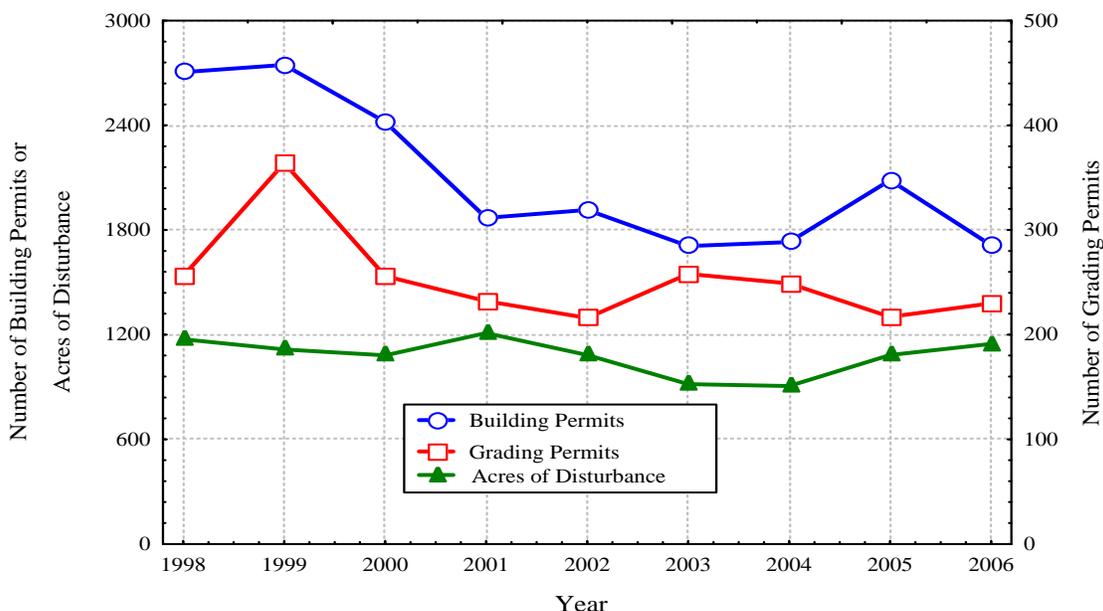


Figure 2-3: Approved Grading and Building Permits for the Period 1998 – 2006.

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 2006. 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 2006, 1,736 enforcement actions were logged (Table 2-4, last column and Figure 2-4), and 12,937 inspections were logged (Table 2-4, seventh column and Figure 2-5). These numbers represent a slight decrease in comparison with the activities in 2005.

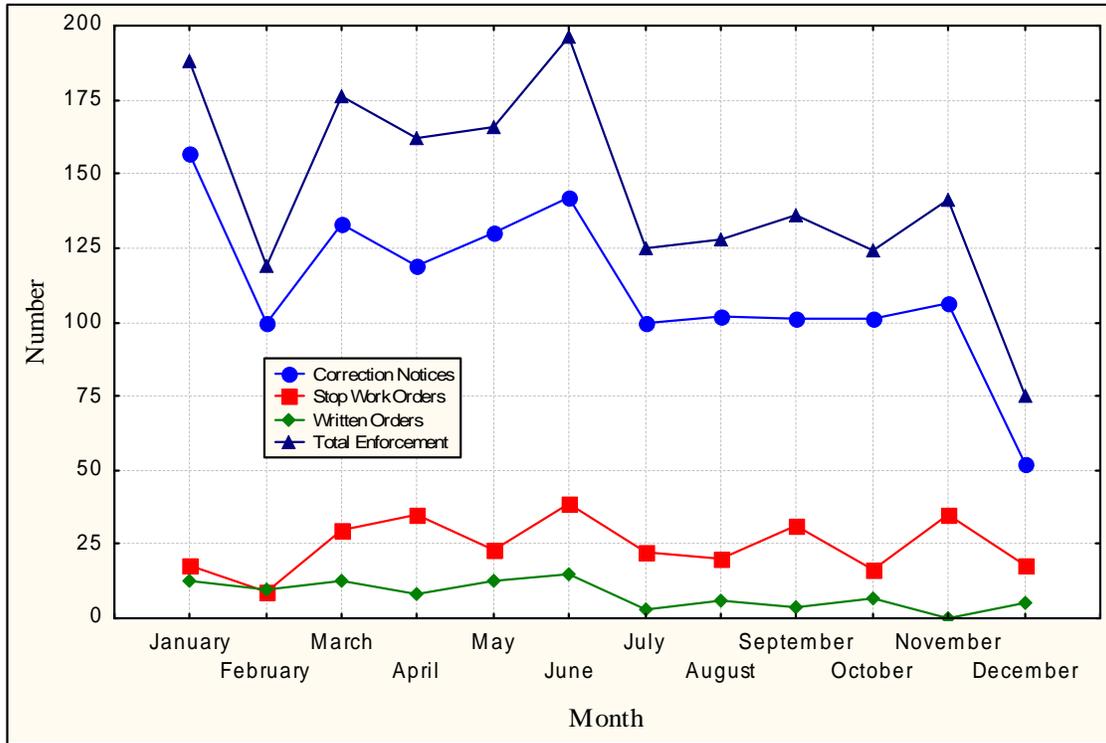


Figure 2-4: The number of sediment control enforcement actions by month for the calendar year 2006.

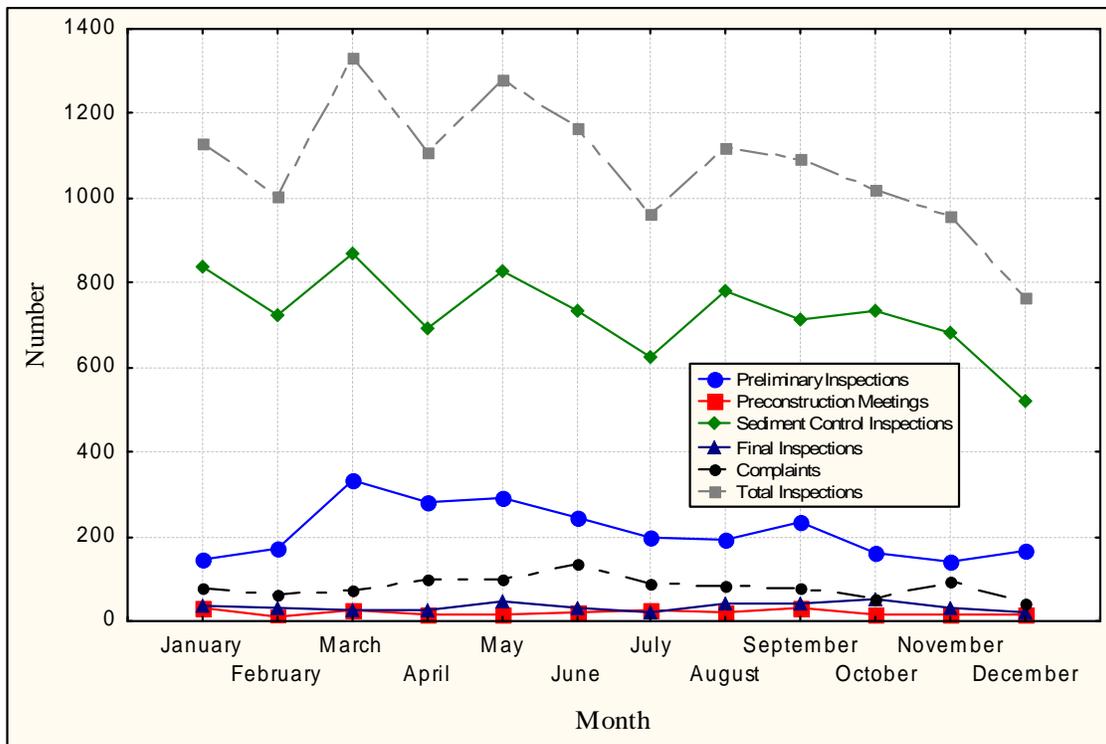


Figure 2-5: Number of sediment control inspections and the total number of inspections by month for the calendar year 2006.

Table 2-4: Sediment Control Inspection Data for 2006

Month	Prelim.	Pre Constr.	S.C. Inspt.	Final Inspt.	Complaint	Total Inspt.	Correct. Notice	Stop Work Order	Written Orders	Totals Enforce
January	146	29	839	37	76	1,127	157	18	13	188
February	172	11	726	32	62	1,003	100	9	10	119
March	334	28	871	28	71	1,332	133	30	13	176
April	280	14	691	27	99	1,111	119	35	8	162
May	294	18	828	45	97	1,282	130	23	13	166
June	244	22	735	31	136	1,168	142	39	15	196
July	198	28	627	22	86	961	100	22	3	125
August	193	20	782	42	81	1,118	102	20	6	128
September	233	30	712	43	77	1,095	101	31	4	136
October	163	15	733	54	54	1,019	101	16	7	124
November	142	14	680	30	92	958	106	35	0	141
December	165	14	522	21	41	763	52	18	5	75
Totals	2564	243	8746	412	972	12,937	1343	296	97	1736

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

Three (3) Responsible Personnel Certification training sessions were held in 2006: January 24, February 8, and March 16. A list of ninety-five (95) 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.

2.5 Summary

In the fall of 2005, 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, 2008. Additional changes to the program will be made as necessary. DEPRM will reapply for delegation no later than October 1, 2007.

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Appendix 2-1: List of Individuals Receiving Certification

LAST NAME	FIRST NAME	DATE	CERT NUM
BISKER	JESSE G.	03/16/2006	28511
ALMONEY	ANTHONY A.	03/16/2006	28507
ANGELL	MARK W.	03/16/2006	28508
BAKER	RYAN M.	03/16/2006	28510
TAYLOR	ELNIO E.	03/16/2006	28524
CUTLER	BRADLEY D.	03/16/2006	28512
DORGAN	MICHAEL J.	03/16/2006	28513
EBERLY	JAMES C.	03/16/2006	28514
HEINDEL	JOHN S.	03/16/2006	28515
HORNBERGER	ROBERT F.	03/16/2006	28516
TYSON	MATT A.	03/16/2006	28526
HORST	JARRET S.	03/16/2006	28517
SEARLE, JR.	RICHARD E.	03/16/2006	28522
SMITH	KENNETH E.	03/16/2006	28523
BACON	THOMAS S.	03/16/2006	28509
TAYLOR	TREVOR A.	03/16/2006	28525
ROBINSON	PETER M.	03/16/2006	28521
MUNDIS	ROBERT E.	03/16/2006	28520
LOWE	JIMMY D.	03/16/2006	28519
LEADER	BARRY L.	03/16/2006	28518
STEWART	BERNARD	02/08/2006	28503
DAVIS	MICHAEL A.	02/08/2006	28460
CRUE, III	CHARLES P.	02/08/2006	28458
CULBRETH	SEBASTIAN G.	02/08/2006	28459
ALLEN	EVERETT W.	02/08/2006	28455
COX	VERNON L.	02/08/2006	28457
DEBOSE	SHAWN L.	02/08/2006	28461
STREETT	ROBERT P.	02/08/2006	28504
VARNER	CHARLES H.	02/08/2006	28505
SMITH	EDWARD E.	02/08/2006	28502
SMITH	COURT J.	02/08/2006	28501
RILEY	JEREMY J.	02/08/2006	28500
RAMEY	LARRY G.	02/08/2006	28484
PRINGIE	KEITH I.	02/08/2006	28483
HINES	KENNETH R.	02/08/2006	28465
HERRION	ANTHONY C.	02/08/2006	28463
HAGERICH	TERRY L.	02/08/2006	28462
OXYER, SR.	CRAIG E.	02/08/2006	28477
BOYD	WILLIAM A.	02/08/2006	28456
PEE	RAESHAN A.	02/08/2006	28478
YOUNG	ERIC D.	02/08/2006	28506
NASH	JOHN	02/08/2006	28476
MYERS	CHRIS J.	02/08/2006	28475
MILLER, JR.	CARL E.	02/08/2006	28474
MERRITT	WILLIAM P.	02/08/2006	28473

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LAST NAME	FIRST NAME	DATE	CERT NUM
MCDOWELL	WARREN R.	02/08/2006	28471
LEACH	MICHAEL D.	02/08/2006	28470
LANG	JESSE E.	02/08/2006	28468
JONES	MICHAEL J.	02/08/2006	28467
HOLTHAUS	BERNARD J.	02/08/2006	28466
HODGES	STEVE P.	02/08/2006	28465
DAVIS	JAMARK	02/08/2006	28465
MEINL	CHARLES H.	02/08/2006	28472
PITTS	DAVID M.	02/08/2006	28479
KNOWLES	HOLLY S.	01/24/2006	26867
ECCLESTON	WILLIAM	01/24/2006	26864
ELDER	JOHN D.	01/24/2006	26865
FUHRMAN	ADAM L.	01/24/2006	26866
GUTERMUTH, JR.	EDWARD W.	01/24/2006	26867
JOHNSON	JOSEPH E.	01/24/2006	26868
DONOHUE	KEVIN P.	01/24/2006	26861
KELLEY, JR.	PAUL F.	01/24/2006	26869
KITCHENS	GAVIN A.	01/24/2006	26866
KRAEMER	MICHAEL A.	01/24/2006	26868
KEENEY	RAY E.	01/24/2006	26865
REALL	JULIEANN	01/24/2006	28492
TURNER	DOUGLAS S.	01/24/2006	28481
TROXELL	MICHAEL W.	01/24/2006	28480
TEMPLE	WAYNE C.	01/24/2006	28489
SPENCE	CHRISTOPHER A.	01/24/2006	28488
SOLTIS	CRAIG S.	01/24/2006	28487
SMITH	STEFAN J.	01/24/2006	28486
SCHMEK	THOMAS A.	01/24/2006	28485
VANARSDALE, III	EDWARD J.	01/24/2006	28482
RENO	MARCUS D.	01/24/2006	28493
MUNDIS	JAY E.	01/24/2006	28499
PAGANI	PAUL R.	01/24/2006	28491
MYERS	MICHAEL W.	01/24/2006	28490
MCCULLOUGH	MARK R.	01/24/2006	28498
MALONE	TIM M.	01/24/2006	28496
LINGENFELDOR	TRACY A.	01/24/2006	28495
DONOHUE	MATTHEW M.	01/24/2006	26862
EBERLY	JARED C.	01/24/2006	26863
RYAN	GEORGE D.	01/24/2006	28494
BLOCK	ADAM D.	01/24/2006	26854
COUTO	JACK	01/24/2006	26859
BROCZKOWSKI	LAVERNE M.	01/24/2006	26858
BRITTINGHAM	KEVIN D.	01/24/2006	26857
MALONE	MATTHEW P.	01/24/2006	28497
BOBLITZ	CHARLES M.	01/24/2006	26855
BLANCHARD	CHRIS A.	01/24/2006	26853

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LAST NAME	FIRST NAME	DATE	CERT NUM
ALMONEY	TROY E.	01/24/2006	26852
DEVORE	BARRY R.	01/24/2006	26860
LEE	WILLIAM C.D.	01/24/2006	26869
BOZMAN	MICHAEL W.	01/24/2006	26856