



**OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT**

**Annual Evaluation Summary Report**

**For the**

**Regulatory and AML Programs**

**Administered by the State**

**Of**

**MARYLAND**

**For**

**Evaluation Year 2007**

**(July 1, 2006, through June 30, 2007)**

**September 2007**

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## I. Introduction/Summary

### *Introduction*

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide federal funding for State Regulatory programs that OSM has approved as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Maryland Program and the effectiveness of the Maryland Program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the period of July 1, 2006, through June 30, 2007. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Pittsburgh Field Division (PFD).

### *Summary*

For the evaluation year, oversight data and studies indicate that the Maryland Program has been effective in meeting the goals of SMCRA. Maryland has conducted a program where active mining sites are, with few exceptions, in compliance with planning, mining, and reclamation standards. Reclamation is thorough and has proceeded in a contemporaneous fashion. A study of the three most recently issued permits indicates that, on average, eighty-one percent of the affected area is being backfilled and planted at any point in time.<sup>1</sup> Eighty-seven percent of inspectable units were found free of off-site impacts.

Maryland has only one outstanding program amendment which remains to be implemented and this amendment is on hold pending OSM's decision on ownership/control regulations. In addition to mining and reclamation efforts, the Maryland Department of the Environment (MDE) has continued to involve the public through programs such as the Watershed Cooperative Agreement Program.

Although no new concerns were identified in this year's evaluation, there are continuing concerns which are addressed in more detail under the "Regulatory Program Issues" subsection. The concerns involve the adequacy of performance bond to guarantee reclamation on permit sites in general, and the adequacy of performance bond for an unanticipated acid discharge from a coal refuse pile. Coordination is ongoing to address these concerns. OSM will work with MDE to resolve these issues and others addressed in the evaluation year 2008 Performance Agreement between MDE and OSM. This will help ensure the continuation of a strong and viable program in the State of Maryland.

The sections which follow provide additional detail on program successes and issues identified in the 2007 evaluation year. Below is a list of acronyms used in this report:

ABS                      Alternative Bonding System

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<sup>1</sup> 64 % in 1998 study, 68 % in 1999 study, 87 % in 2000 study, 75% in 2001, 78% in 2002, 91% in 2003  
73% in 2004 study, 90% in 2005 study, 76% in 2006 study.

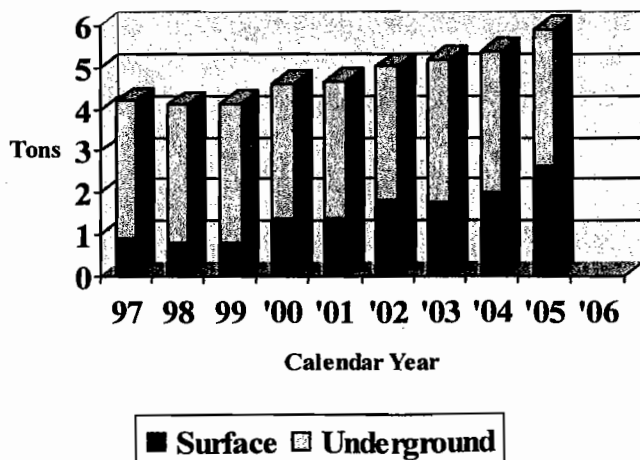
ACSP	Appalachian Clean Streams Program
AES	Allegheny Energy Systems
AMD	Acid Mine Drainage
AML	Abandoned Mine Lands
AMLIS	Abandoned Mine Land Information System
AOC	Approximate Original Contour
APS	Allegheny Power System
BOM	Maryland Bureau of Mines
COMAR	Code of Maryland Regulations
EPA	Environmental Protection Agency
LRC	Maryland Land Reclamation Committee
NOVO	Notice of Violation and Order
NRCS	Natural Resources Conservation Service
MDE	Maryland Department of the Environment
NEPA	National Environmental Policy Act
OSM	Office of Surface Mining Reclamation and Enforcement
PFD	Pittsburgh Field Division
SMCRA	Surface Mining Control and Reclamation Act of 1977
SOAP	Small Operator Assistance Program
WCAP	Watershed Cooperative Agreement Program

## II. Overview of the Maryland Coal Mining Industry

Coal mining in western Maryland began in the early 1700's, accounting for some of the earliest coal ever to be mined in the eastern United States. By 1820, several mines were operating in the Eckhart, Frostburg, and Vale Summit areas. Between 1900 and 1918, deep mine production peaked between four and five million tons annually with an historical high of 5.5 million tons in 1907. Most of these mines were developed up-dip to drain water away from the mines. As a result of this, water high in acid and iron drained into streams. Today, acid mine drainage from abandoned coal mines is

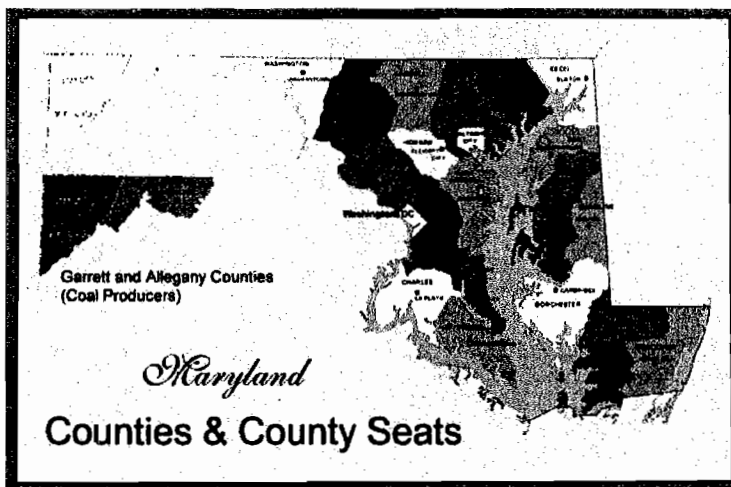
Western Maryland's most serious water pollution problem. After World War II, underground mining declined in Maryland. By 1977, surface mining accounted for 91 percent of the total production. Since then, production at underground mines has recovered and surpassed surface production, accounting for approximately sixty-one percent of the total production in 2005, down one percent from the previous year<sup>2</sup>. During the

Maryland Coal Production - Millions of tons (gross)



1980's, the amount of coal mined in Maryland fluctuated between three and four million tons, with the greatest production occurring in 1981 (4.5 million tons). Since that time, as shown graphically on the chart above, the tonnage mined has been generally increasing over the last five calendar years to a production of almost ?? million short tons for 2006<sup>2</sup>. The increase is attributable primarily to surface coal mine production. Since 1999, surface coal production has more than tripled while underground production has remained nearly constant. The majority of underground coal production in Maryland is generated from one mine. This mine is responsible for more than one half of the mine employees in the state and for approximately forty-five percent of total coal production<sup>3</sup> This mine stopped production in the last quarter of 2006.

Today coal mining in Maryland is confined to Garrett and the western portion of Allegany County. The topography in this area comprises gently rolling terrain with occasional steep slopes. Maryland State law prohibits surface mining on steep slopes. The Conemaugh and Allegany geologic formations contain five major minable fields or basins in the State. These include the Upper Youghiogheny, Lower Youghiogheny, Casselman, Upper Potomac, and Georges Creek. The Georges Creek Basin contains the most recoverable coal reserves in the State, followed by the Upper Potomac and the Casselman. There is no mining in the Upper Youghiogheny field. The recoverable coal reserves in Maryland are approximately thirty-five million tons<sup>4</sup>, which is an increase of one hundred eleven percent from the previous year. Maryland ranks fifteenth of the seventeen States that reported reserves for 2005<sup>5</sup>.



Coal production in Maryland accounted for .46 percent of total U.S. coal production in 2005<sup>6</sup>, and

<sup>2</sup> Source – Form OSM-1

<sup>3</sup> Source – Calendar Year 2006 Eighty-fifth Annual Report of the Maryland Bureau of Mines

<sup>4</sup> Source - Energy Information Administration, U.S. Department of Energy, Annual Coal Report, Table 14, Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines by State, 2005, 2004.

<sup>5</sup> Many Coal-producing States are now not reporting this information

ranks eighteenth nationally in coal production of the 26 states reporting. Production is expected to drop significantly in the next year with the closing of the primary underground coal producer in Maryland. Maryland employs approximately five hundred two coal miners (year 2005 statistic), an increase of 1 percent from the previous year.<sup>7</sup>

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<sup>6</sup>Source - Energy Information Administration, U.S. Department of Energy, 2005 Annual Coal Report, Table 6, Coal Production and Number of Mines by State and Coal Rank

<sup>7</sup>Source – Energy Information Administration, Table 18, Average Number of Employees by State and Mine Type, 2005, 2004.

### **III. Overview of Public Participation Opportunities in the Oversight Process and the State Program**

There are numerous opportunities for citizens, the industry, and environmental groups to participate in the Maryland Regulatory and Abandoned Mine Lands (AML) programs. Opportunities for public involvement include outreach efforts, organizational involvement, and formal regulatory participation.

#### ***Outreach***

Outreach is the interaction on a routine periodic basis for Maryland, along with local governmental bodies, coal associations, businesses, citizens and environmental groups, to actively seek out and determine their areas of concern and suggestions.



**George Beener (Barton Mining) accepting award from Shari Wilson (Md. Sec. of Environment)**

During the evaluation year The Maryland Department of the Environment, Bureau of Mines celebrated Arbor Day by co-hosting a tree planting event with the Georges Creek Watershed Association. The event was held on April 11, 2007. The event included the awarding of State Reforestation Awards to Barton Mining and Patriot Mining. The program was attended by the Maryland Secretary of the Environment, Shari T. Wilson who also looked at past tree planting sites.



Approximately 50 students from local high schools participated in the event. More than 1000 hardwood and pine seedlings were planted to commemorate Arbor Day.



**Local high-school students planting trees during Arbor Day event**

Photo courtesy of Maryland BOM

Maryland Bureau of Mines officials provided an all day tour of both surface and underground mines for 45 new OSM employees on November 2, 2006. Tour participants met with Industry representatives and local citizens to gain an understanding of both Title IV and V issues. Other public tours conducted by MDE involved out-of-state watershed groups looking at Maryland dosers and scientists from India looking at mining operations in conjunction with Department of Energy (DOE) employees.

New program initiatives such as ARRI and the WCAP program were also shown in the field.

Maryland maintains a partnership with the Maryland Resource Conservation and Development agency on various projects such as WCAP and employment support.

OSM continues to involve the public, the state and others in the oversight of the program. A newsletter is published 6 times per year that provides updates on all significant legislative and regulatory changes as well as activities carried out by OSM in the region. Agency and field office



**Tour for new OSM employees**

web sites as well as published notices are used as a means of obtaining input from the public.

### ***Organizational/Public Involvement***

MDE routinely provides opportunities for public participation in both the Title IV and V programs. All hearings and public meetings provide a forum for the public, industry, the academic community and local politicians to voice their opinions on various issues.

Organizational involvement in restoring Maryland's mined lands continues to grow in both the regulatory and abandoned mine lands program. Maryland continues to broaden its involvement with such groups as watershed associations, National Park Service, Natural Resource Conservation Service, Trout Unlimited, and others. Through increased partnering opportunities with various groups and agencies, Maryland is able to leverage additional funds and take on additional land reclamation projects.

### **Regulatory Program**

The Land Reclamation Committee (LRC) was formed in 1967 through legislation enacted by the State of Maryland. The Committee is composed of 13 members representing the mining industry, soil conservation districts, counties, citizens, and State agencies. The Committee studies, recommends, and approves procedures to reclaim, conserve, and replant land affected by coal mining in Maryland. This includes the review of mining and reclamation plans, progress reports, and final reports. It establishes plans and procedures, as well as practical guidelines, for prompt and satisfactory reclamation, conservation, and revegetation of all lands disturbed by coal mining within the State. The Committee meets periodically and OSM representatives attend the meetings along with members of the public, industry consultants, and coal operators.

Under the Code of Maryland Regulations (COMAR), the public can formally participate in the regulatory program by requesting hearings on the issuance of permits and bond releases; petitioning to have areas declared unsuitable for mining; requesting inspections of active coal mine operations where there is reason to believe a violation is occurring (citizen complaints); requesting pre-blast surveys if living within one half mile of the permit area; and appealing Departmental decisions through the appeal process.

During this evaluation year, Maryland mining officials provided input to concerned citizens of the small community of Carlos, Maryland during several meetings with a coal operator during start up operations at a local surface mine. MDE officials also met with citizens at a public meeting dealing with proposed mining operations near the town of Westernport.

### **Appalachian Regional Reforestation Initiative**

During the evaluation year, Maryland, OSM and the other six Appalachian coal-producing States continued to make progress in implementing the Appalachian Regional Reforestation Initiative (ARRI).

The Initiative's goals are to plant more high-value hardwood trees on reclaimed coal mined lands in Appalachia and to increase the survival rates and growth rates of planted trees. Accomplishing the goals of the Reforestation Initiative is done using Forestry Reclamation Approach (FRA) technology. The FRA is a proven technique used to increase the productivity of reclaimed mine land

on areas where trees are to be planted. The FRA technique consists of placing a minimum of 4 feet of a suitable growing medium (the original soil and/or weathered sandstone) on the surface and then performing minimal grading to prevent excessive compaction. The resulting surface is very loose, rough and rocky, which increases storm water infiltration and allows for increased root penetration and available nutrients. As demonstrated by decades of research, the tree growth rate exceeds that of undisturbed, natural forest soil. Other aspects of the FRA include: using native and noncompetitive ground covers that are compatible with growing trees, planting two types of trees (early succession species for wildlife and mine-soil improvement and commercially valuable crop trees), and using proper tree planting techniques.

Maryland continues to be an active participant in the Appalachian Regional Reforestation Initiative.

The Maryland Bureau of Mines works with coal operators to encourage the FRA and other good reclamation practices. Annually, the Bureau provides trees, grown at the state nursery, for planting projects. Since 1960, a total of 8,100 acres of mined land has been planted in trees in Maryland.

### **Abandoned Mine Land Program**

Maryland continues to be an active participant with local communities, watershed groups, and State and Federal agencies in accomplishing mutual Abandoned Mine Land Program goals. These goals usually involve the clean-up of acid mine drainage (AMD) problems that impact local streams. The Watershed Cooperative Agreement Program is a part of the Appalachian Clean Streams Program (ACSP) and is intended as a means of funding not-for-profit groups, especially small watershed groups that undertake local AMD reclamation projects. Cooperative agreements are signed between OSM and these groups at the time of the grant award. Grants can range from \$5000 to \$100,000 and there is a two-year performance period to complete a particular project. An integral part of the Cooperative Agreement program is the requirement that the proposed project be done by a group of partners and these partners must provide a substantial portion of the total resources needed to complete the project.

Some of the more active partners Maryland works with include:

- Allegany County Public Works
- Appalachian Environmental Lab
- Braddock Run Watershed Association
- Canaan Valley Institute
- EPA
- Garrett County Community Action Agency
- Garrett County Public Works
- Georges Creek Watershed Association
- MD DNR
- MD Small Streams & Estuaries Program
- NRCS
- Western MD RC & D
- Yough River Watershed Association

These groups have become increasingly important for funding larger scale AMD projects when

Maryland's funds are limited due to its minimum program status. Maryland personnel actively participate in speaking at public forums and watershed meetings. They are also active in Earth Day activities and speaking to schoolchildren.

Maryland routinely holds public hearings during off hours dealing with planned AML projects. The meetings are advertised in the local media. Maryland AML personnel also assist groups such as the Braddock Run Watershed Association who met with Bureau personnel to review possible Title IV reclamation projects in their watershed.

A joint state AML and Georges Creek Watershed Association project was done during the review period at Railroad Street in Lonaconing, MD.

### ***Impacts/Results of Public Participation***

#### **Regulatory**

There were twelve public requests for pre-blast surveys during the evaluation year. There were 9 LRC meetings held during the period. Five of the meetings were regularly scheduled office meetings, and four were for evaluating revegetation eligible for phase II and/or III bond release. There were no public petitions for designating lands unsuitable for mining and reclamation operations in Maryland during the evaluation year. There were two citizen complaint Ten Day Notices (TDN's) issued by OSM alleging four violations. The first TDN was for a water loss complaint. This TDN result is pending as a result of the amount of time necessary for the approval and construction of a public waterline. The second TDN contained 3 violations and resulted in the state requiring major modifications to the permit. Both TDN's resulted in an appropriate response from Maryland. No hearings were requested on the issuance of permits or bond releases.

#### **AML**

During the 2007 Evaluation Year, the State of Maryland continued to work cooperatively with watershed groups, other government agencies, and county governments to promote the goals of the AML program.

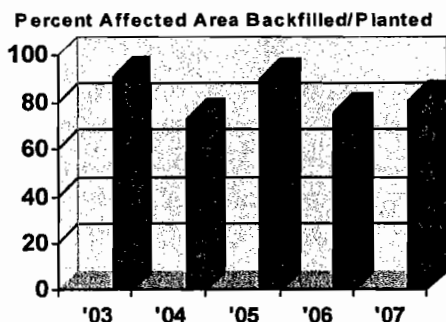
Through the Appalachian Clean Streams Initiative (ACSI) program, the Watershed Cooperative program, The Eastern Brook Trout Initiative and other programs, Maryland is able to partner with public and private groups in furtherance of their approved AML program

Since the program was started in 1999, Maryland and its' partners have completed 16 Watershed Cooperative Agreement Projects. Another 6 projects are approved and pending construction.

## IV. Accomplishments/Issues in the Maryland Program

MDE continues to be successful in achieving the purposes of SMCRA. The Maryland program is firmly established, the public's rights and interests are being protected, mining is being conducted effectively, efficiently, and in an environmentally sound manner, and abandoned mine lands are being reclaimed. In addition to these general measures of success, MDE has been actively involved in several program improvement initiatives and activities. These are discussed below, along with outstanding issues and concerns that are being addressed in a mutual effort to maintain a high level of quality in the Maryland program.

### *Regulatory Program Accomplishments*



MDE's Title V program has remained effective in the planning, mining, and reclamation of active coal sites. A detailed review of the three most recently issued permits indicates that, at any time, on average, eighty-one percent of the affected area has been backfilled and planted.<sup>8</sup> The chart at the left shows how this figure has varied over the last five years. The average has been eighty-two percent over this period.

Eighty-seven percent of inspectable units exhibited no off-site impacts during this evaluation year<sup>9</sup>.

MDE works to continuously improve existing processes and procedures under their approved program, and takes innovative measures to establish new programs. During this evaluation period, MDE resolved two existing topical study issues and had a program amendment approved, improving the program in the following areas:

- **Impoundment Certifications** – Maryland updated as-built pond certifications to assure compliance with statements required by COMAR 26.20.21.09 B.
- **Annual Impoundment Inspections** - Maryland updated the annual impoundment inspection report to assure that all discussion items required per COMAR 26.20.21.09 C.2. are included
- **Bonding** – Maryland revised their law and received OSM approval to improve the ability of the Maryland Department of the Environment to finance reclamation projects by increasing the amounts available in the Bond Supplemental Reserve in conformance with 30CFR §800.11(e). The amendment also addressed findings and recommendations found in the Actuarial Study approved by OSM in the Federal Register dated May 13, 1998 (Volume 63, Number 92)] [Rules and Regulations] [Page 26451-26454].

<sup>8</sup> 91% in 2003 study, 73% in 2004, 90% in 2005, and 76% in 2006 study.

<sup>9</sup> 92% of non-forfeiture sites, and 67% of forfeiture sites

- **Vegetation Success** – Maryland began utilizing statistically valid evaluation techniques for determining phase II and phase III woody vegetation success.
- **Forfeiture Reclamation** – Of the original 13 permits for which the permit was revoked during this evaluation year as a result of the bankruptcy, the surety company agreed to perform reclamation on five permits; of these five, two have been reclaimed, with reclamation almost completed on a third; bond has been received by Maryland on five of the remaining eight permits; Discussions with the surety and interested third parties is ongoing for the remaining three.

### ***Regulatory Program Issues***

During this review period, two issues continue to potentially impact successful implementation of the approved MDE program.

**Buffalo/United Bankruptcy** – As a result of the bankruptcy declaration last year of two of the major permittees in Maryland, impacting approximately one fourth of Maryland’s inspectable units, three program areas were identified as a target of potential negative program impacts. These areas included Maryland’s alternative bonding system (ABS), adequacy of resources for contracting forfeiture reclamation, and environmental impacts. During this evaluation year OSM has been monitoring Maryland’s progress in identifying and resolving these issues. Significant progress has been made as follows:

- **ABS Impact** - In 2005, OSM determined that Maryland’s ABS was solvent and sufficient to reclaim all outstanding forfeitures for the first time since March 1999. However, as a result of the above-mentioned forfeitures, last year OSM renewed concerns regarding the adequacy of Maryland’s ABS system, particularly in relation to catastrophic events<sup>10</sup>. Maryland shared this concern, and as a result undertook an internal study to project the cost of reclamation of active sites. The study used hypothetical situations, which, while not reflective of actual mine sites or conditions, suggested potential reclamation cost scenarios. The study showed that, as a result of changes in mining techniques in Maryland which have developed over the years, including larger mines and longer haul distances, the present bonding system is inadequate to address the majority of worst-case scenarios which might be encountered in Maryland. To address this issue, Maryland is now considering ways to increase both conventional and flat bond with minimum impact on both the health of the industry and ability to acquire bond. One such scenario under consideration is increasing conventional non-revegetation bond by \$500 across the board, increasing fees from 10 cents to 15 cents per ton of surface mined coal, increasing the supplemental reserve cap of the ABS from \$750k to \$5 million, and establishing a volume bond calculation when open acres exceed 40 acres and/or pit width exceeds 100 feet. Under this scenario the BOM study showed a maximum liability to the ABS pool of approximately \$4.4 million for a single site “catastrophic event”<sup>11</sup>. Once the bond pool reached the scenario’s \$5 million cap, it would be able to handle such a catastrophic event. However, OSM expressed concern that, at the historic rate of income into the pool, it will take more than ten years to reach the \$5 million

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<sup>10</sup> 778 of Maryland’s 2336 bonded surface acres representing approximately \$2.7 million in bond were tied up by Buffalo/United,

<sup>11</sup> Defined in prior studies as one extremely costly forfeiture or several above average forfeitures

dollar cap, even if no further forfeitures occur in Maryland<sup>12</sup>. To address this vulnerability, OSM suggested Maryland consider a one-time deposit into the reserve, making the reserve interest-bearing, and using set-aside funds to address AMD problems for forfeitures in qualified hydrologic units.

Maryland is considering this and other alternatives to address the issue. BOM noted that changes to conventional bonding, including introduction of a volume bond calculation could be achieved without changes to their law or regulations. Changes affecting the bond pool, including increasing fees and raising the cap, would require changes to the law.

OSM believes this is a serious issue and it is critical that resolution occur as quickly as possible.

- Resources Impact – A potential concern OSM identified last year was the impact to Maryland's staff resources if the bankruptcy resulted in the forfeiture of most or all of the seventeen permits operated by the two companies. Maryland is a small program with a staff of only fifteen full time equivalent (FTE) positions, which includes 3.5 AML FTE's. The limited staff resources could significantly delay the reclamation of these sites, thereby increasing costs as inflationary factors came into play. During this evaluation year, Maryland has managed, through permit transfers and surety reclamation, to cut their exposure to reclamation responsibility in half. Of the eight sites that Maryland is presently responsible for contracting reclamation efforts, four of these may result in assumption of permit responsibilities by other companies via permit transfer/re-issuance.

OSM will continue to monitor the situation, and has plans to conduct an oversight review in EY08 to assure that only administrative costs not directly associated with site-specific reclamation work, and costs for activities that would have been performed had there been no forfeiture, are paid from grant funds.

- Off-Site Impact – Last evaluation year OSM raised a concern that the longer reclamation takes to initiate, the more potential there is for off-site impacts. This places additional strains on both the bond pool and staff resources. During this evaluation year, in addition to cutting their exposure on forfeited sites in half as mentioned above, only seven off-site impacts were observed on the United/Buffalo forfeiture sites and none of the impacts were considered major.

**Acid Mine Drainage (AMD) Discharge** – Since 2001 OSM has been concerned about an unanticipated refuse pile discharge. The discharge was added to OSM's acid mine drainage inventory list in January 2003. The discharge emanates from an active refuse pile and flows at an average 192 gallons per minute. The issue involves the adequacy of bond coverage if continued treatment is necessary following reclamation of the refuse site. Maryland's approved program includes an alternative bonding system (ABS). However, the ABS does not include acid mine

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<sup>12</sup> based on the bond pool fund balance from June 2006 of \$630k, and an average income of \$23,131/month (July '05 – June'06 figures)

drainage coverage. Approval of the system<sup>13</sup> was based on the results of an actuarial study which states, "...the BOM intends to limit the liability of the ABS by increasing the bond amount to reflect the AMD on any site where unanticipated AMD develops." While working with the coal company to acknowledge and monitor the unanticipated AMD discharge since 2004, the BOM has been unable to provide a basis for the decision not to increase reclamation bond on the site. Following a meeting with Maryland in February 2007, OSM agreed to provide assistance by estimating capital and operation treatment costs for the discharge. OSM technical staff completed the cost estimate in May, 2007. The analysis was based on eighteen months of monitoring data and assumed that the quality and quantity of water emanating from the discharge would continue at current conditions. The capital and operation costs for two systems -- a hydrated lime treatment and caustic soda treatment -- were analyzed under worst case and median conditions. The analysis showed that the hydrated lime system would be the least expensive treatment system. Under median conditions, this system would require an estimated \$109,227 in capital costs and annual treatment and sludge removal costs of \$425,948. OSM has sent the analysis to Maryland and requested comments and a plan to address the issue. Maryland is presently coordinating with the coal company on analysis of the cost estimates and will provide a response to OSM by the end of August, 2007.

### ***AML Program Accomplishments***

Maryland's AML program continues to make effective use of its Title IV funding as one of seven minimum program states nationwide. Maryland has completed one standard AML program project during this evaluation year<sup>14</sup>. The Appalachian Clean Streams Program that is designed to reclaim land damaged by past mining practices and to alleviate the associated AMD problems continues to improve stream water quality in Maryland.

The following represents Maryland's on-the-ground accomplishments achieved during the review period for the Title IV program:

**Standard AML Projects** - Maryland is one of seven minimum program states that receive \$1.5 million in Title IV funds annually from OSM to fund AML projects. Maryland historically has been allowed to deposit up to \$1 million of this amount into an interest bearing account for the sole purpose of addressing AML problems. Maryland uses approximately \$284,000 annually from this source to purchase limestone, sample discharges, and maintain nine dosers and one pulse limestone feeder utilized in treating AMD in Maryland waters. According to Maryland records, since 1993, these dosers have been responsible for removing 12,681 tons of acidity from Maryland waterways.

During the evaluation year, Maryland completed the Railroad Street Mine Drainage Control Project. The project had been in planning and development for several years. Partnering with the Western Maryland RC&D, Maryland was able to complete the project and eliminate downstream flooding due to AMD and treat AMD through a passive treatment system before entering the receiving stream. Watershed Cooperative Agreement funds were also used in conjunction with the Georges Creek Watershed Association to install a passive treatment system at the site. The project cost was

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<sup>13</sup> FR vol. 63, No. 92/Wednesday, May 13, 1998, 26451

<sup>14</sup> railroad Street Mine Drainage Control Project



\$481,292.00. Two Successive Alkaline Producing (SAPS) were installed to treat AMD before it enters the main receiving stream of Georges Creek.



### **Jackson Mountain AML Enhancement Project**

also helped prepare and process two additional NEPA evaluations for the Owens North and Owens South WCAP's located on Aaron Run. ATP's were issued for both of the projects.

Another project was begun during the evaluation year. The Jackson Mountain Gob Pile Reclamation Project does not involve any Title IV funds and is part of a government financed no-cost contract that involves the removal of a gob pile with the proceeds from the sale of the gob going back to the operator. This was the first AML Enhancement project in Maryland. Reclamation of the site is outlined in an abbreviated permit with plans and specifications and approved by Maryland Title IV and V personnel.

Maryland submitted NEPA applications to OSM for review of 5 projects. Authorizations to Proceed (ATP'S) for all the projects were issued. Maryland

**Appalachian Clean Streams Program Projects** - Maryland received \$117,383 in fiscal year 2007 from the Appalachian Clean Streams Program (ACSP) to use in partnering with private and public funding sources. The funds are utilized solely for the remediation of AMD problems.

The Watershed Cooperative Agreement Program, a sub-program under the ACSP, has allowed Maryland to partner with groups having the same water quality goals.

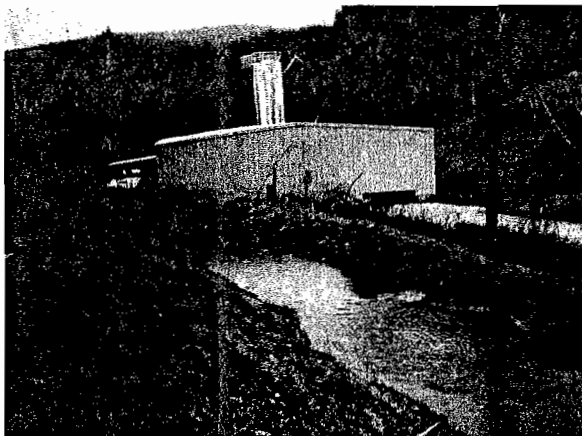
Under the recent AML Reauthorization bill, the primary ACSP program is to be discontinued. The Watershed Cooperative Agreement sub-program will continue to receive funding that can be passed on to approved Watershed groups for various AMD projects.

Three watershed projects were completed during the period. The Midlothian Project involved the collection and treatment of several poor quality AMD seeps that have caused a portion of Winebrenner Run to be devoid of aquatic life. The seeps have been collected and directed through a Pyrolucite Treatment system. The Jay Rice project, located near the town of Crellin in Garrett County, was discharging AMD from an abandoned deep mine. This discharge was collected and treated in a Pyrolucite treatment bed before discharging into a tributary of the Youghiogheny River.



### **Jay Rice Pyrolucite Project**

The Kempton Doser Enhancement project was



### **Kempton Doser Enhancement Project**

received the President's Environmental Youth Award during the evaluation period. The award was presented to the students at an awards ceremony held in Washington D.C.

undertaken during the period utilizing funds from EPA, MDE and OSM to install a Maelstrom Aerator and associated ponds and treatment facilities. The project was intended to reduce the amount of iron sediments being deposited in Laurel Run and the wetland areas downstream from the doser. The project has not proven itself to be cost effective due to the maintenance requirements of the aerator, the disposal of the iron sludge and the operational costs.

A completed project, the Crellin School AMD Project, which involved the cleaning up of approximately 1 acre of coal refuse and the development of a 2.8 acre AMD/ wetlands project,

### ***AML Program Issues***

There were no AML program issues identified during the evaluation year.

## V. Success in Achieving the Purposes of SMCRA as Measured by the Number of Observed Off-Site Impacts and the Number of Acres Meeting the Performance Standards at the Time of Bond Release

### *Off-Site Impacts*

OSM collects the data from inspections and other evaluations for a perspective of the number and extent of observed off-site impacts. These data also include the number of acres that have been mined and reclaimed that meet the bond release requirements for the various phases of reclamation. Individual topic reports that provide additional details on how the following evaluations and measurements were conducted are available by contacting the Pittsburgh Field Division.

Maryland conducted 520 complete, routine, compliance inspections on Maryland's sixty-eight inspectable units.<sup>15</sup> Off-site impacts were observed and recorded on the off-site impacts sheet (Exhibit 3).<sup>16</sup> In order to verify inspection results, OSM accompanied Maryland on thirty-five permits. These joint inspections included general oversight inspections<sup>17</sup>, citizen complaint inspections<sup>18</sup>, bond release inspections<sup>19</sup>, acid mine drainage inventory (AMD) inspections<sup>20</sup>, and bond forfeiture inspections<sup>21</sup>. Some of the permit sites were reviewed for more than one type of inspection. For each joint inspection, an MDE inspector accompanied the OSM inspector. At the conclusion of each completed inspection, a Mine Site Evaluation Report (MER) was completed. As an attachment to the MER, a data sheet titled "Off-Site Impacts" was also completed, as well as a Performance Tracking Evaluation (PTE) form which includes off-site impact information. This data was used to characterize the nature and extent of off-site impacts found during the course of the investigation as well as enumerating the number of instances observed.

The data collected, evaluated, and reported consists of the following information:

1. The number and types of impacts
2. Resources impacted (land, water, people, or structures); and
3. The degree of impacts (minimal, moderate, or major).

The data is shown in exhibit 2.

Findings were recorded, compiled, and the results analyzed for trends.

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<sup>15</sup> Per BOM (REG8 table 4); includes forfeitures

<sup>16</sup> For State inspections, Off-site impacts were recorded by Maryland only for those sites for which a formal violation was issued

<sup>17</sup> Fifteen randomly selected permit sites which were reviewed for all aspects of planning, mining, and reclamation

<sup>18</sup> There were no formal complaints resulting in issuance of TDN's by OSM. Citizen complaints resulting in issuance of a TDN may result in generation of an off-site impact record based on the assertions in the complaint.

<sup>19</sup> Four sites were reviewed for final reclamation prior to bond release

<sup>20</sup> Three sites on the AMD Inventory due to unanticipated acid discharges were field-reviewed

<sup>21</sup> Thirteen bond forfeiture inspections were conducted in addition to two which were part of the complete inspections

Of the sixty-eight inspectable units<sup>22</sup>, fifty-nine (87%) exhibited no off-site impacts.

Of the eight sites with impacts<sup>23</sup>, fifteen impacts were observed. Nine of these impacts occurred on forfeited sites. Of the remaining six, five resulted in the issuance of State Notice of Violation and Orders (NOVO's), all of which have been abated; The remaining impact was resolved appropriately by Maryland

Joint inspections of thirty-five inspectable units resulted in twenty-eight (80%) exhibiting no off-site impacts. The difference between the results for joint inspections and Maryland-only inspections is partly due to the fact that Maryland only records off-site impacts for those sites where they issued violations. Because Maryland did not re-issue violations for forfeiture sites which had outstanding violations, and OSM included those sites in their off-site impact information, the results are skewed. By eliminating those fifteen sites from the statistics, the result for joint inspections would be eighteen of twenty sites (90%) showing no off-site impacts, which is similar to the state-only inspections.

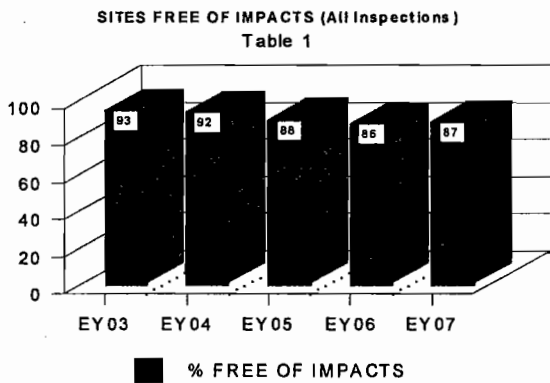
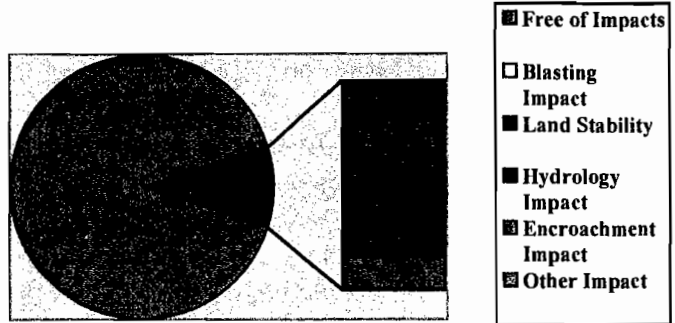
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<sup>22</sup> Includes 15 forfeiture sites

<sup>23</sup> 110, 247, 335, 367, 414, 422, 428, 443

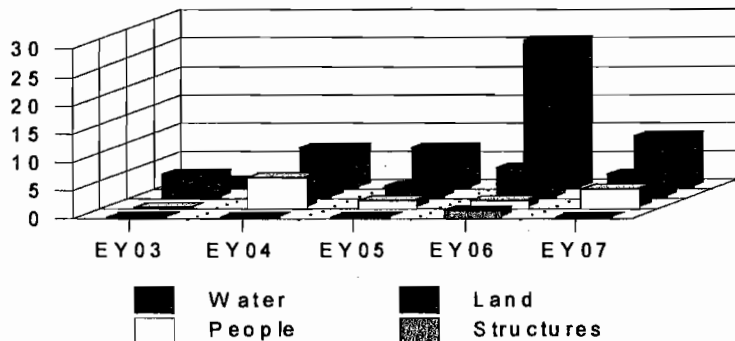
### Off-Site Impact Distribution '03 - '07

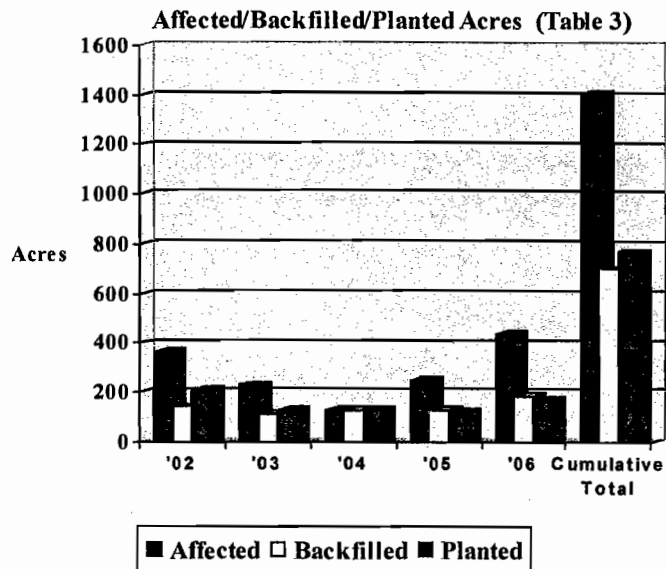
**Historical Comparison** In addition to the current year evaluation, historic trends over the last five years were evaluated as to the number and types of impacts, resources impacted, and severity of impacts. Results indicate that off-site impacts in Maryland are generally minor in nature and occur infrequently. Eighty-seven percent of permit sites were found free of off-site impacts for the current evaluation year (Table 1). Historically, this has remained fairly constant over the last five years with an average of eighty-nine percent.



When impacts do occur, water and land are the most frequently impacted resources (Table 2). The severity of impacts has been predominantly minor in nature with eight major impacts over the last five years. Six of those impacts occurred during evaluation year 2004 and all were hydrology impacts. The seventh occurred during 2005 and the eighth during 2006. Seven of the eight major impacts affected people and one affected water resources. The people affects were due to contamination of water wells.

IMPACTED RESOURCES (All inspections) Table 2





### **Reclamation Success**

OSM conducted this recurring annual study to evaluate the effectiveness of ensuring successful reclamation on lands affected by surface coal mining operations.<sup>24</sup> The study revealed that reclamation is effective and successful under the Maryland State Program. Maryland operations continue to improve post mining land capability by removing and reclaiming highwalls, abandoned underground mines and spoil piles, with an estimated 179 acres of underground mines, 5250 feet of highwall, and 25 acres of spoil material eliminated for the four permits reviewed..

Five parameters; Timeliness of Inspections, Restoration of Land Form/ Approximate Original Contour (AOC), Restoration of Land Capability, Hydrologic Reclamation, and Contemporaneous Reclamation, were reviewed to evaluate reclamation success during this study.

Eight evaluations were conducted on four sites. For the eight evaluations conducted, all were in compliance with all criteria of all five parameters. All of the inspection sites were evaluated within the appropriate season and all evaluations were completed within the thirty-day limit stipulated by regulation.

In addition to the accomplishments above, Maryland improved their program by instituting a statistically valid method of evaluating woody revegetation success, and by improving on the time to determine completeness of an application for bond release, which allowed for conducting inspections during a more favorable time of year.

As illustrated in table 3, reclamation is occurring in a contemporaneous manner. The cumulative ratio of affected and planted to backfilled acres for the five year period 2002 through 2006 is 50 acres backfilled and 55 acres planted for every 100 acres affected.<sup>25</sup>

During the evaluation year, Maryland's LRC and BOM jointly approved 118 acres and disapproved 97 acres of phase II reclamation. BOM approved 98 acres and disapproved 275 acres of phase III reclamation.<sup>26</sup>

<sup>24</sup> Reclamation Success study, Evaluation Year 2007; Available upon request from the PFD Office.

<sup>25</sup> Source – Maryland Bureau of Mines annual reports, 2002-2006.

<sup>26</sup> Source – 9/7/06 Bond Release Letter; Approval constitutes the go-ahead for the permittee to apply for bond release inspection.

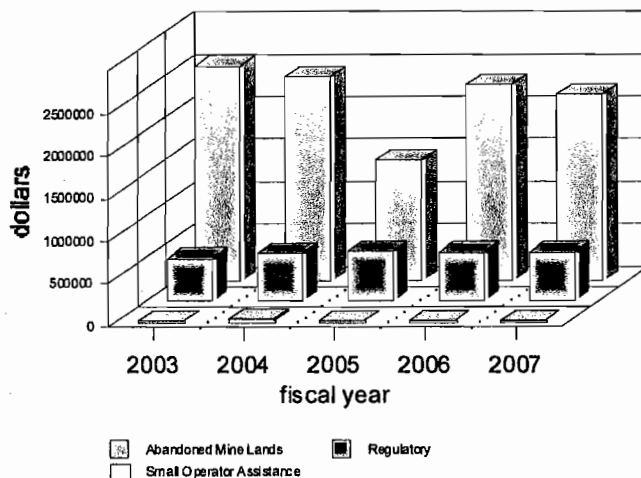
## VI. OSM Assistance

Upon request, OSM provides various types of assistance to MDE in the form of financial, technical, managerial, and training assistance. OSM provided the following assistance to MDE during the evaluation period:

### *Financial Assistance*

As shown in table 9 (Appendix A), OSM awarded \$575,520 in Title V regulatory assistance funding during evaluation year 2007. This is in addition to the \$2,192,903 awarded for the Title IV abandoned mine lands reclamation program.<sup>27</sup> No funds were awarded for the SOAP program. This program is being phased out. Table 4 shows comparative grant awards for the three program areas over the last five fiscal years.

Table 4 - Historical Funding Levels  
Net Awards



### *Technical Assistance*

During the review period OSM provided the following technical assistance to Maryland:

- OSM hydrologists assisted Maryland in providing treatment methods and costs for a refuse pile discharge.
- OSM technical staff continued to provide assistance in a study to characterize a mine pool in Maryland. This study is hoped to predict the impact on the mine pool from the closing of deep mine operations in Maryland and West Virginia. OSM installed three water-level loggers at three monitoring wells to record hourly water-level fluctuations of the mine pool. The loggers were installed in January and data has been downloaded on a monthly basis. Water samples were taken at two of the monitoring wells in April. Water-level data is being shared with the Maryland Bureau of Mines, US Geological Survey and the mining company.
- OSM provided national Financial Business Management System (FBMS) training for Maryland grants staff.
- OSM reviewed nine submissions for compliance with the National Environmental Policy Act (NEPA) and one watershed cooperative agreement project.
- OSM participated in quarterly meetings with Maryland to address programmatic, financial, and other issues impacting the Maryland approved program.
- OSM provided technical assistance on the reclamation of a landslide project.
- OSM provided technical assistance on toxic discharge treatment options for a forfeiture site.
- OSM provided assistance in proposing modifications to the blasting plan found in Maryland's permit application to assure compliance with program requirements.

<sup>27</sup> Includes \$117,383 for Appalachian Clean Streams Initiative Projects

Continued to provide assistance in implementation of Maryland's Database Cooperative Agreement. This \$75,000 federal assistance award is to upgrade Maryland's permitting database to address State and federal needs.



## VII. General Oversight Topic Reviews

In addition to the studies to assess off-site impacts and evaluate the effectiveness in achieving successful reclamation, OSM conducted three additional studies during the evaluation period in accordance with the OSM/MDE evaluation year 2007 work plan. The results of the studies are discussed below. OSM will work with MDE in the next evaluation period to resolve issues raised as a result of these studies.

### *Applicant Violator System Determinations*

The objective of this study was to evaluate customer service by reviewing Maryland's Applicant Violator System (AVS) determinations for Title V permit applications and Title IV AML contractors.

OSM Directive REG-8 stipulates that OSM conduct a yearly oversight evaluation of one of six areas of the State program that involves customer service. AVS actions were last reviewed during the EY02 evaluation year. The review<sup>28</sup> included comparison of OSM law under PL95-87, federal regulations under 30 CFR, and OSM Directive INE-32<sup>29</sup> with the Annotated Code of Maryland §15-504, State regulations under Code of Maryland Regulations (COMAR) 26.20, and Maryland's AVS Memorandum of Understanding to assure compliance with Maryland's approved program and that the program in this area was as effective as the federal counterpart. Next, coordination with OSM's AVS Office was undertaken to get an update on the status of current litigation relating to the enforcement of the above rules and law, and to have the AVS Office provide a database study of Maryland AVS review actions for the period October 1, 2005 through September 30, 2006. After interviewing State personnel to determine the processes and procedures used by Maryland in following the requirements of their regulations, a file review was conducted to verify documentation of the implementation of the AVS processes by Maryland, and follow up on the findings made in the Lexington AVS office study.

Requirements for use of the AVS are stipulated in OSM/State Memoranda of Understandings (MOU), Directive INE-32, Federal Regulations, and approved State programs. In addition, guidance is provided via AVS system Advisory Memoranda (SAM) and The AVS Users Guide.

The study concluded that Maryland is not obligated to follow the requirements of an MOU as their original MOU with OSM has expired and Maryland chose not to execute a subsequent MOU such as the model contained in Directive INE-32. Maryland also is not obligated to follow Directive INE-32 as it is subject to holding a valid MOU. Maryland is not obligated to submit a program amendment at this time to comply with OSM regulations pending the outcome of litigation. Finally, Maryland's approved program does not include any direct reference regarding compliance with AVS requirements. Therefore, Maryland's use of the AVS is voluntary.

Despite compliance being voluntary, with limited exceptions, Maryland follows current requirements included in the OSM Directive, Regulations, and their approved program by using the AVS system for

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<sup>28</sup> Maryland Applicant Violator System Determinations, Evaluation Year 2007. Copies available from the PFD office upon request.

<sup>29</sup> Oversight Procedures for States' Implementation of the Applicant/Violator System Memorandum of Understanding.

evaluating permit application eligibility determinations, and entering information and updates into the system.

### ***Performance Monitoring***

OSM conducted a study during the evaluation period<sup>30</sup> to assess the general impact of planning, mining, and reclamation activities on the effectiveness of the Maryland Program in controlling adverse environmental impacts during and after mining. Inspections of Maryland mine sites included in-depth review of twenty-two general performance standards for planning, mining, and reclamation of permit sites in the State and more than one hundred associated programmatic requirements. Based on this review, Maryland's approved program is successful in planning for and controlling adverse environmental impacts both during and after mining. Maryland has taken significant steps over the last three years in assuring all observed violations are cited.

There were no recommendations made for this study.

### ***Drawdown Analysis and Audit***

OSM's ARCC Grants Staff conducted one Quarterly Drawdown Analyses during FY 2007. The drawdown analysis was conducted in accordance with the following requirements:

- Department of Treasury Fiscal Requirements Manual 6-2080.20, which requires that periodically, but not less than each calendar quarter, the Federal program agency shall review each recipient's use of funds advanced. To satisfy this requirement, OSM determined:
  - that there was no difference between the total amount of funds drawn via the Financial and Business Management System (FBMS) and disbursements related to the Federal program; and
  - that cash was being withdrawn in accordance with program disbursement needs.
- Treasury Circular 1075 (31 CFR 205) requires that cash advances to a recipient organization shall be limited to the minimum amounts needed, and shall be timed to be in accord only with the actual, immediate cash requirement of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to the actual disbursements by the recipient organization. There were no discrepancies related to this requirement.

The Maryland Department of the Environment drawdown activities were found to comply with both of these requirements.

There were no audit findings referred to OSM for disposition during this Evaluation Year.

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<sup>30</sup> Maryland Performance Monitoring, Off-Site Impacts combined report, Evaluation Year 2007. Copies available from the PFD office upon request.

## **APPENDIX A (REG-8 tables)**

These tables present data pertinent to mining operations and State and Federal regulatory activities within Maryland. They also summarize funding provided by OSM and MDE staffing. Unless otherwise specified, the reporting period for the data contained in all tables is July 1, 2006, to June 30, 2007. Additional data used by OSM in its evaluation of MDE's performance is available for review in the evaluation files maintained by the PFD office.

When OSM's Directive REG-8, Oversight of State Programs, was revised in December 2006, the reporting period for coal production on Table 1 was changed from a calendar year basis to an evaluation year basis. The change was effective for the 2007 evaluation year. In addition to coal production figures for the current year, Table 1 also contains the coal production figures from annual evaluation reports for the two most recent prior years. Therefore, for the 2007 annual evaluation report, coal production figures are provided for 2005, 2006 and 2007. In order to ensure that coal production for these three years are directly comparable, the calendar year production figures from the 2005 and 2006 annual evaluation reports were recalculated on an evaluation year basis (July 1 – June 30). This should be noted when attempting to compare coal production figures from annual evaluation reports originating both before and after the December 2006 revision to the reporting period.

**TABLE 1 – Coal Production**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 1**

<b>COAL PRODUCED FOR SALE, TRANSFER OR USE (Millions of short tons)</b>			
<b>Period</b>	<b>Surface Mines</b>	<b>Underground Mines</b>	<b>Total</b>
<b>Coal production<sup>A</sup> for entire State:</b>			
<b>Evaluation Year</b>			
<b>2005</b>	2.473	3.406	<b>5.879</b>
<b>2006</b>	2.569	2.899	<b>5.468</b>
<b>2007</b>	1.879	1.817	<b>3.696</b>

<sup>A</sup> Coal production as reported in this table is the gross tonnage which includes coal that is sold, used or transferred as reported to OSM by each mining company on form OSM-1 line 8(a). Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by States or other sources due to varying methods of determining and reporting coal production. **Provide production information for the latest three full evaluation years to include the last full evaluation year for which data is available.**

**TABLE 2 – Inspectable Units**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 2**

<b>INSPECTABLE UNITS</b>															
<b>As of June 30, 2007</b>															
<b>Coal mines and related facilities</b>	<b>Number and status of permits</b>								<b>Number of Insp. Units<sup>A</sup></b>	<b>Permitted acreage<sup>B</sup> (100's of acres)</b>					
	<b>Active or temporarily inactive</b>		<b>Inactive Phase II bond release</b>		<b>Abandoned</b>		<b>Totals</b>			<b>Federal Lands</b>		<b>State/ Private Lands</b>		<b>All Lands</b>	
	<b>IP</b>	<b>PP</b>	<b>IP</b>	<b>PP</b>	<b>IP</b>	<b>PP</b>	<b>IP</b>	<b>PP</b>		<b>IP</b>	<b>PP</b>	<b>IP</b>	<b>PP</b>	<b>Total</b>	
<b>LANDS FOR WHICH THE STATE IS THE REGULATORY AUTHORITY</b>															
Surface mines		48		6		2	0	56	56				61	61	
Underground mines		4		1		1	0	6	6				9	9	
Other facilities		6					0	6	6				1	1	
<b>Total</b>	<b>0</b>	<b>58</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>68</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>71</b>	
Total number of permits:										<u>68</u>					
Average number of permits per inspectable unit (excluding exploration sites):										<u>1</u>					
Average number of acres per inspectable unit (excluding exploration sites):										<u>104.41</u>					
Number of exploration permits on State and private lands:								<u>2</u>	On Federal lands <sup>C</sup> :		<u>0</u>				
Number of exploration notices on State and private lands:								<u>5</u>	On Federal lands <sup>C</sup> :		<u>0</u>				
<b>IP:</b> Initial regulatory program sites															
<b>PP:</b> Permanent regulatory program sites															
<sup>A</sup> Inspectable units include multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.															
<sup>B</sup> When a single inspectable unit contains both Federal lands and State/Private lands, enter the permitted acreage for each land type in the appropriate category.															
<sup>C</sup> Includes only exploration activities regulated by the State pursuant to a cooperative agreement with OSM or by OSM pursuant to a Federal lands program. Excludes exploration regulated by the Bureau of Land Management.															

**TABLE 3 – State Permitting Activity**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 3**

STATE PERMITTING ACTIVITY As of June 30, 2007												
Type of Application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New Permits	4	3	133	0	0	0	0	1	5	4	4	138
Renewals	3	6		0	2		3	1		6	9	
Transfers, sales and assignments of permit rights	4	3		0	0		0	0		4	3	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										2	2	
Exploration notices <sup>B</sup>											5	
Revisions (exclusive of incidental boundary revisions)		23			2			4			29	
Revisions (adding acreage but are not incidental boundary revisions)	3	13		0	0		0	0		3	13	0
Incidental boundary revisions	7	4		2	0		0	1		9	5	0
<b>Totals</b>	<b>21</b>	<b>52</b>	<b>133</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>5</b>	<b>28</b>	<b>70</b>	<b>138</b>

OPTIONAL - Number of midterm permit reviews completed that are not reported as revisions: 0

<sup>A</sup> Includes only the number of acres of proposed surface disturbance.

<sup>B</sup> State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

**TABLE 4 – Off-Site Impacts**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 4**

OFF-SITE IMPACTS (excluding bond forfeiture sites)												
RESOURCES AFFECTED DEGREE OF IMPACT	People			Land			Water			Structures		
	minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
Blasting	2											
Land Stability												
Hydrology	1			1			1					
Encroachment	3			3								
Other												
<b>Total</b>	<b>6</b>	<b>2</b>		<b>4</b>			<b>1</b>					
Total number of inspectable units (excluding bond forfeiture sites): <u>53</u> Inspectable units free of off-site impacts: <u>49</u> Inspectable units with off-site impacts: <u>4.00</u>												
OFF-SITE IMPACTS ON BOND FORFEITURE SITES												
RESOURCES AFFECTED DEGREE OF IMPACT	People			Land			Water			Structures		
	minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major
Blasting												
Land Stability												
Hydrology	9	1					5	3				
Encroachment												
Other												
<b>Total</b>	<b>9</b>	<b>1</b>					<b>5</b>	<b>3</b>				
Total number of inspectable units (only bond forfeiture sites): <u>15</u> Inspectable units free of off-site impacts: <u>10</u> Inspectable units with off-site impacts: <u>5</u>												

**TABLE 5 – Annual State Mining and Reclamation Results**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 5**

<b>ANNUAL STATE MINING AND RECLAMATION RESULTS</b>				
<b>Bond release phase</b>	<b>Applicable performance standard</b>	<b>During this Evaluation Year</b>		
		<b>Total acreage released</b>	<b>Acreage also released under Phase I</b>	<b>Acreage also released under Phase II</b>
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
Phase I	- Approximate original contour restored - Topsoil or approved alternative replaced	98		
Phase II	- Surface stability - Establishment of vegetation	224	0	
Phase III	- Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored	198	58	143
<b>Bonded Acreage</b>		<b>Acres during this evaluation year</b>		
Total number of new acres bonded during this evaluation year		521		
Number of acres bonded during this evaluation year that are considered remaining, if available		0		
Number of acres where bond was forfeited during this evaluation year		461		
<b>Bonded Acreage Status</b>		<b>Cumulative Acres</b>		
Total number of acres bonded as of the end of last review period (June 30, 2006) <sup>B</sup>		6796		
Total number of acres bonded as of the end of this period (June 30, 2007) <sup>B</sup>		6658		
Sum of acres bonded that are between Phase I bond release and Phase II bond release as of June 30, 2007 <sup>B</sup>		0		
Sum of acres bonded that are between Phase II bond release and Phase III bond release as of June 30, 2007 <sup>B</sup>		532		
<b>Disturbed Acreage</b>		<b>Acres</b>		
Number of Acres Disturbed during this evaluation year		592		
Number of Acres Disturbed at the end of the evaluation year (cumulative)		1807		
<sup>A</sup> Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.				



**TABLE 6 – State Bond Forfeiture Activity**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 6**

<b>STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)</b>			
<b>Bond Forfeiture Reclamation Activity by RA</b>	<b>Number of Sites</b>	<b>Dollars</b>	<b>Acres</b>
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2006 (end of previous evaluation year) <sup>A</sup>	1		25
Sites with bonds forfeited and collected during Evaluation Year 2007 (current evaluation year)	5	\$680,700	461
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2007 (current evaluation year)	0		0
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2007 (current evaluation year)	0		0
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2007 (end of current evaluation year) <sup>A</sup>	5		461
Sites with bonds forfeited but uncollected as of June 30, 2007 (end of current evaluation year)	8		764
<b>Surety/Other Reclamation (In Lieu of Forfeiture)</b>			
Sites being reclaimed by surety/other party as of June 30, 2006 (end of previous evaluation year) <sup>B</sup>	0		0
Sites where surety/other party agreed to do reclamation during Evaluation Year 2007 (current evaluation year)	5		502
Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year 2007 (current evaluation year)	0		0
Sites with reclamation completed by surety/other party during Evaluation Year 2007 (current evaluation year) <sup>C</sup>	2		274
Sites being reclaimed by surety/other party as of June 30, 2007 (current evaluation year) <sup>B</sup>	3		228
<sup>A</sup> Includes data only for those forfeiture sites not fully reclaimed as of this date. <sup>B</sup> Includes all sites where surety or other party has agreed to complete reclamation, and the site is not fully reclaimed as of this date. <sup>C</sup> This number also is reported in Table 5, since Phase III bond release has been granted on these sites.			

**TABLE 7 – State Staffing Levels**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 7**

<b>STATE STAFFING</b> <b>(Full-time equivalents at the end of evaluation year)</b>	
<b>Function</b>	<b>EY 2007</b>
<b>Regulatory Program</b>	
Permit review	2.30
Inspection	3.00
Other (administrative, fiscal, personnel, etc.)	7.10
<b>Regulatory Program Total</b>	<b>12.40</b>
<b>AML Program Total</b>	<b>4.39</b>
<b>TOTAL</b>	<b>16.79</b>

**TABLE 8 – Grant Funding**

**TABLE 8**

<p align="center"><b>FUNDS GRANTED TO MARYLAND BY OSM (During the Current Evaluation Year) ( Actual Dollars, Rounded to the Nearest Dollar)</b></p>		
<b>Type of Funding</b>	<b>Federal Funds Awarded During Current Evaluation Year</b>	<b>Federal Funding as a Percentage of Total Program Costs</b>
<b>Regulatory Funding</b>		
Administration and Enforcement Grant	\$575,520	50.00%
Other Regulatory Funding, if applicable	\$0	0.00%
<b>Subtotal (Regulatory Funding)</b>	\$575,520	
<b>Small Operator Assistance Program Grant</b>	\$0	100%
<b>Abandoned Mine Land Reclamation Funding<sup>A</sup></b>	1,617,383	100%
<b>Totals</b>	2,192,903	
<p><sup>A</sup> Includes funding for AML Grants, the Clean Streams Initiative and the Watershed Cooperative Agreement Program.</p>		

**TABLE 9 – State Inspection Activity**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 9**

<b>STATE INSPECTION ACTIVITY</b>		
<b>During Current Evaluation Year</b>		
<b>Inspectable Unit Status</b>	<b>Number of Inspections Conducted</b>	
	<b>Complete</b>	<b>Partial</b>
Active <sup>A</sup>	520	914
Inactive <sup>A</sup>	0	0
Abandoned <sup>A</sup>	0	0
<b>Total</b>	<b>520</b>	<b>914</b>
<b>Exploration</b>	<b>0</b>	<b>0</b>
<sup>A</sup> Use terms as defined by the approved State program.		

**TABLE 10 – State Enforcement Activity**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 10**

<b>STATE ENFORCEMENT ACTIVITY</b>		
<b>During Current Evaluation Year</b>		
<b>Type of Enforcement Action</b>	<b>Number of Actions<sup>A</sup></b>	<b>Number of Violations<sup>A</sup></b>
<b>Notice of Violation</b>	7	8
<b>Failure-to-Abate Cessation Order</b>	1	1
<b>Imminent Harm Cessation Order</b>	8	9

<sup>A</sup> Do not include those violations that were vacated.

**TABLE 11 – Lands Unsuitable Activity**

Maryland  
EY 2007, ending June 30, 2007

**TABLE 11**

<b>LANDS UNSUITABLE ACTIVITY</b>		
<b>During Current Evaluation Year</b>		
	<b>Number</b>	<b>Acreage Declared as Being Unsuitable</b>
Number of Petitions Received	0	
Number of Petitions Accepted	0	
Number of Petitions Rejected	0	
Number of Decisions Declaring Lands Unsuitable	0	0
Number of Decisions Denying Lands Unsuitable	0	0

## **APPENDIX B**

## ***Maryland Comments and Disposition***

Maryland had no comments for this report



