

**Office of Surface Mining  
Reclamation and Enforcement**

**Pittsburgh Oversight & Inspection Office**



**Evaluation Report**

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**Off Site Impacts**

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**Maryland Regulatory Program**

**Evaluation Year 2001**

**REG - 8**

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## **BACKGROUND AND PURPOSE**

The purpose of this evaluation was to assess the number and severity of off-site impacts occurring at or near active surface mining sites as a measure of Maryland's mining program in achieving the purposes of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The study was developed as one of the Office of Surface Mining's initiatives under REG-8.

The identification and measurement of off-site impacts are the primary means of evaluating the effectiveness of State programs in protecting the environment and public, both during and after mining and reclamation. The strategy to accomplish this measurement includes reporting on the number and extent of off-site impacts, the causes of the impacts, and, if applicable, recommending improvements to lessen the number and degree of impacts. The ultimate goal of this effort is to decrease the occurrence of off-site impacts.

The off-site resources that may be affected during mining and reclamation operations include land, water, people, and structures. Water resources include surface and ground water quality and quantity. Any fish and wildlife resources that may be impacted are considered a part of water and land resources.

The types of impacts that may affect these resources include blasting, land stability, hydrologic impacts, encroachments on protected or non-permitted areas, or other miscellaneous types. An off-site impact usually occurs outside the permit area. However, off-site impact may also occur within a permit area such as an encroachment into a buffer zone or area prohibited from mining.

## **METHODOLOGY**

To accomplish an evaluation of off-site impacts, information was collected from two sources, OSM inspections and MDE inspections reports and records. The OSM inspections were conducted on twenty randomly selected permit sites which were reviewed for all aspects of planning, mining, and reclamation (general oversight inspections), and five sites which were reviewed for final reclamation prior to bond release (bond release inspections). A total of twenty-five sites were inspected. For each 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. This data sheet 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. Data from this sheet and the MER narratives were used to formulate the findings in this report. The data collected, evaluated, and reported on 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).

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

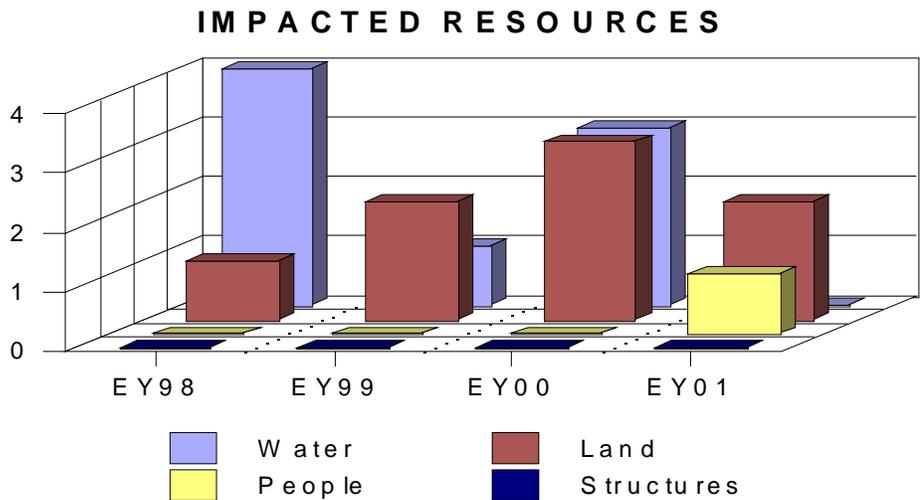
## **DATA PRESENTATION AND DISCUSSION**

Of the twenty-five sites jointly inspected, twenty-four (96%) exhibited no off-site impacts. The twenty-five inspections resulted in four deferred violations issued by MDE.

The one site identified with an off-site impact was permit SM-91-419. This permit had an off-site impact associated with a breached perimeter drainage control ditch. Sediment was determined to have left the permit area and been deposited in an off-permit wooded area resulting in a minor impact to the land. Maryland issued a Notice of Violation and Order (NOVO). The operator subsequently repaired the diversion and the violation was terminated.

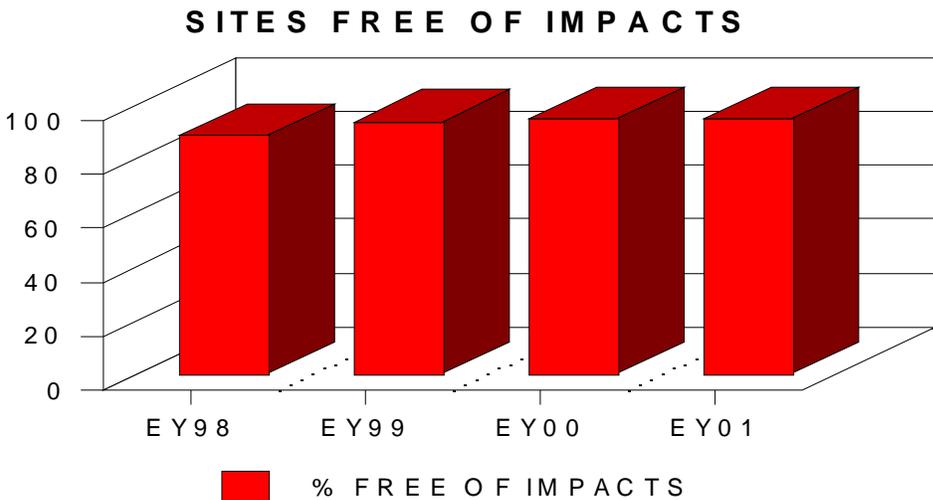
In addition, Maryland conducted 869 routine, non-joint compliance inspections in which two additional off-site impacts were observed. Permit SM-92-423 had off-site sedimentation that resulted in a minor off-site impact to the land. Maryland issued a NOVO and the violation was corrected. Permit SC-83-110 had dust leaving a coal tipple facility and resulting in a moderate impact to nearby residents. Maryland issued a NOVO for failing to implement the approved dust control plan. The operator revised the plan and the violation was abated.

In addition to the current year evaluation, historic trends over the last four 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. On



average, ninety five percent of permit sites have been found free of off-site impacts<sup>1</sup>. When impacts do occur, water and land are the most frequently impacted resources, with only one impact to people and none to structures within the last four years (Table #1). The severity of impacts has been minor in nature with two exceptions.

One exception occurred during evaluation year 2000 as a result of a broken sludge line and caused a moderate impact to land and water resources. The other exception occurred during the current evaluation year as a result of fugitive dust from a tipple site and caused a moderate impact to people



## CONCLUSION

The study sites reviewed reflect the successful protection of the environment and public from off-site impacts resulting from surface coal mining and reclamation operations under the approved Maryland program. No significant areas of concern were uncovered for the twenty-six sites reviewed. On twenty-five of the inspections, no off-site impacts were observed. When off-site impacts were observed, they were minor to moderate in nature and mitigated. . When warranted and appropriate,

<sup>1</sup>This statistic is based on the total of both joint OSM/MDE and MDE-only inspections.

NOVO-s were issued. The data from this study and previous studies demonstrates that Maryland effectively controls the occurrence of off-site impacts and takes appropriate enforcement actions when off-site impacts are found.

## **SUMMARY FINDINGS AND RECOMMENDATIONS**

- \$ No off-site impacts were observed on 96% of the joint inspections conducted
- \$ Over the last four evaluation years, an average of 95% of permit sites in Maryland have been found free of off-site impacts.
- \$ All but one of the off-site impacts identified during the joint inspections were minor in nature and appropriate enforcement actions were taken and the violation was mitigated. The one non-minor impact was considered a moderate impact.
- \$ Maryland effectively controls the occurrences of off-site impacts and mitigates impacts in a rapid manner when they do occur.

# **APPENDICES**

**Appendix A**  
**Sites Reviewed for the Study**

COMPANY	PERMIT NUMBER	NO IMPACTS	MITIGATED IMPACTS	UNMITIGATED IMPACTS	LAND IMPACTS
Buffalo Coal Co., Inc.	SM-86-409	1			
Winner Brothers Coal Co.	SM-84-383	1			
Tri-Star Mining, Inc.	SM-91-419	1			
Barton Mining Co., Inc.	SM-84-338	1			
John Duckworth Coal Co.	SM-84-372	1			
Pine Mountain Coal Co.	SM-83-382	1			
Tri-Star Mining, Inc.	SM-95-425	1			
Patriot Mining Co., Inc.	DM-90-109	1			
Anker West Virginia Mining Co. Inc.	DM-89-108	1			
Buffalo Coal Co., Inc.	SM-84-328	1			
Winmore Mining & Construction	SM-84-375	1			
Winmore Mining & Construction	SM-84-273	1			
Brashear Coal Mines	SM-84-264	1			
Cobra Mining	SM-84-184	1			
Tri-Star Mining, Inc.	SM-97-429	1			
Barton Mining Inc.	SM-99-432	1			
Tri-Star Mining, Inc.	SM-99-434	1			
Barton Mining Company, Inc.	SM-99-427	1			
Walter J. Wassell	SM-87-410	1			
Tri-Star Mining, Inc.	SM-91-419	0	YES		1
Patriot Mining Company	SM-99-431	1			
Jenkins Development Co.	SM-87-411	1			
Winner Brothers Coal Company, Inc.	SM-83-385	1			
Barton Mining Co., Inc.	SM-84-338	1			
Buffalo Coal Co., Inc.	SM-84-367	1			
Mettiki Coal Corporation	DM-84-101	1			
<b>Totals</b>		<b>25</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Total as %</b>		<b>96%</b>			<b>3.8%</b>