

2012 Pennsylvania Annual Evaluation Report



Pittsburgh Field Division – Harrisburg Office



**Office of Surface Mining Reclamation & Enforcement
U.S. Department of the Interior**



OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Report

for the

Regulatory and Abandoned Mine Land Reclamation Programs

Administered by the Commonwealth

of

Pennsylvania

for

Evaluation Year 2012

(July 1, 2011 to June 30, 2012)

TABLE OF CONTENTS

I.	Introduction.....	1
II	Summary.....	1
III.	Overview of the Pennsylvania Coal Mining Industry.....	2
IV.	Overview of Public Participation in the Program.....	4
	A. Public Involvement in PADEP’s Regulatory Process.....	4
	B. Outreach by OSM.....	6
V.	Major Accomplishments/Issues/Innovations.....	7
	A. ABS Forfeiture Permits with Post Mining Discharges.....	7
	B. Amendments to the Pennsylvania Approved Regulatory Program	9
	C. PADEP Reorganization.....	11
	D. Growing Greener	12
	E. Appalachian Regional Reforestation Initiative (ARRI).....	13
	F. Other Initiatives and Accomplishments	14
	G. Title IV of SMCRA AML Reclamation.....	18
VI.	Success in Achieving the Purposes of SMCRA.....	31
	A. Off-Site Impacts.....	31
	B. Reclamation Success.....	36
	C. Customer Service.....	38
	D. Bond Adequacy Forfeited Permits.....	38
	E. AML Grant Expenditures.....	41

VII	OSM Assistance.....	42
	A. AMD Inventory Maintenance (Primacy Permits)	42
	B. Watershed Cooperative Agreement Program.....	45
VIII	General Oversight Topic Reviews.....	46
	A. Oversight Inspections.....	46
	B. Conventional Bonds and Treatment Trust Funds.....	53
	C. Al Hamilton Treatment Trust.....	60

On the cover is the Green Mountain South Abandoned Mine Land Reclamation Project, which was reclaimed under a BAMR contract funded by Growing Greener and AML Title IV grant funds. Reclamation of the 104 acre site included backfilling highwalls, pits and water filled pits, and a vertical opening. Reclamation features include 4,000 feet of restored stream, and 9 wetland cells. Also, placed were bluebird, wood duck and bat houses; rock and brush piles; in stream root wads; and den areas for the endangered Eastern Timber Rattlesnake.

APPENDIX A:	Acronyms used in the Report
APPENDIX B:	2011 Ten-Day notices
APPENDIX C:	PADEP comments on draft report
APPENDIX D:	Tabular summaries of data pertaining to mining, reclamation and program administration
Table 1 -	Coal Production
Table 2 -	Inspectable Units
Table 3 -	Special Mining Categories
Table 4 -	State Permitting Activity
Table 5 -	Off-Site Impacts
Table 6 -	Annual State Mining and Reclamation Results
Table 7 -	State Bond Forfeiture Activity
Table 8 -	Pennsylvania Staffing
Table 9 -	Funds Granted to Pennsylvania by OSM
Table 10 -	State of Pennsylvania Inspection Activity
Table 11 -	State of Pennsylvania Enforcement Activity
Table 12 -	Lands Unsuitable Activity
Table 13 -	OSM Oversight Activity

I. 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 have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Pennsylvania Program and the effectiveness of the Pennsylvania Program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the 2012 evaluation year, from July 1, 2011, to June 30, 2012. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at OSM's Harrisburg Office of the Pittsburgh Field Division (PFD). PFD now provides direct access to Annual Reports, Work Plans, Evaluation Reports and other information through the following web address.

<http://www.arcc.osmre.gov/Divisions/PFD/PA/paoversight.shtm>

The OSM Harrisburg Office develops an annual work plan in conjunction with the Pennsylvania Department of Environmental Protection (PADEP), to review and assess Pennsylvania's administration of its approved Abandoned Mine Reclamation, and Coal Mining Regulatory programs. The work plan also focuses on technical and program assistance activities jointly undertaken by OSM and PADEP staff to improve the effectiveness of Abandoned Mine Lands (AML) and Acid Mine Drainage (AMD) reclamation, and coal mining regulatory programs. A copy of the 2012 work plan is available from the OSM Harrisburg Office, or through the web address shown above.

A list of acronyms used in this report is located in Appendix A.

II. Summary

This Evaluation Year 2012 (July 2011 through June 2012) the Pennsylvania coal regulatory and abandoned mine land programs continued to provide environmental protection for coal field citizens. The OSM oversight data of the Pennsylvania coal program indicates PADEP is administering a program where active mining sites are, with few exceptions, in compliance with planning, mining, and reclamation standards. Reclamation of active mining sites is thorough and proceeds in a contemporaneous fashion. PADEP abandoned mine land program restoration is effective in abating safety and environmental problems on previously mined sites. These Pennsylvania programs continue to effectively achieve or exceed the regulatory and reclamation goals of SMCRA.

During the review period OSM conducted a total of 449 permit oversight inspections during the evaluation year. Of those inspections, 144 were oversight complete inspections (OC) of mine sites, with 112 conducted in the bituminous region and 32 conducted in the anthracite region. These inspections covered about 9% of the total number of active and inactive inspectable units in Pennsylvania

OSM conducted 18 oversight complete inspections as “independent” inspections, meaning PADEP was not provided advanced notice of the permit or site to be inspected. However, PADEP is provided a two day advanced notice of the geographic area of the impending inspections so arrangements can be made to accompany OSM.

The annual report presents findings and analysis of PADEP’s regulatory program arising from OSM’s oversight inspection program. Data shows PADEP is administering a regulatory program where active mining sites are, with few exceptions, in compliance with the approved program requirements. Very few off-site impacts were identified and when identified were reported as having mostly minor adverse impacts.

During the evaluation year, OSM issued reports regarding the bond forfeiture reclamation program and the Al Hamilton Treatment Trust. Findings and recommendations are summarized in the annual report, and completed reports for individual studies are available upon request and through the internet. The annual report also presents information and analysis regarding PADEP’s inspection and enforcement program.

During the evaluation year, OSM conducted 25 site visits to approved AML projects during various phases of completion. When possible, site visits were coordinated with BAMR which is offered the opportunity to accompany OSM during the review. The site visits conducted by OSM included 18 construction phase reviews and 7 final phase reviews. Overall, OSM reviews confirm that BAMR successfully manages the AML project reclamation process. BAMR develops effective designs and monitors contractor performance to ensure that the projects meet the goals and objectives of the AML program. In addition to the 25 routine project reviews, the PFD conducted 32 field reviews in support of the 120 AML project authorizations issued during the evaluation period.

III. Overview of the Pennsylvania Coal Mining Industry

The coal geology of Pennsylvania is dominated by the Appalachian Mountains running northeast to southwest and dividing the State into two distinct coal regions as described below. Mountains and gently rolling hills characterize the western bituminous region of the State, where the majority of mines are located. Areas within this region containing acidic overburden often require special reclamation efforts. The bituminous coal seams underlay about 12,000 square miles in 28 counties of the State. The coal is found in four fields; the Main Bituminous Field in the southwest counties; the Georges Creek Field in the southern counties; the Broad Top Field in the south-middle counties; and the North-Central Field in the north-central counties of the State.

The anthracite coal region is located in the northeast quarter of Pennsylvania and covers approximately 3,300 square miles. The coal is found in four fields; the Northern Field; the Eastern-Middle Field; the Western-Middle Field; and the Southern Field. The Southern Field has the greatest amount of reserves that can be mined. The more than 20 different coal seams vary in thickness from a few inches to 50 or 60 feet. The anthracite region is characterized by steeply pitching seams, some with dips in excess of 60 degrees. Such seams require highly specialized mining techniques, and present unique challenges for solving problems such as mine subsidence associated with abandoned anthracite mines.

For more than a century, coal has played a major role in the economic and industrial development of Pennsylvania, particularly the steel making industry, and has historically employed thousands of workers. Although Pennsylvania has experienced a decline in coal production over the past decade, it continues to be a leading coal producing State, due to its estimated bituminous reserves that total 23 billion tons, or 5.3 percent of U.S. reserves, and anthracite reserves that total 7.1 billion tons, or 97 percent of U.S. anthracite reserves.



Anthracite Coal Mine Site

In calendar year 2011, Pennsylvania produced 62,996,934 tons of bituminous and anthracite coal at surface and underground mines and refuse mining sites. This is a 4% increase from the 60.6 million tons reported for calendar year 2010. Bituminous coal accounted for 56.3 million tons, and anthracite production totaled 6.7 million tons.

Coal refuse mine sites produced 5,352,072 tons of material, of which 1,804,547 tons were reported in the bituminous region and 3,547,525 tons in the anthracite region. This important “remining” often results in the restoration of ecologically damaged sites at a savings for the Abandoned Mine Land (AML) Fund, therefore, increasing the AML acreage that can be reclaimed with the Fund.

Underground mining accounted for 78% of the total coal mined in the bituminous region and 70% of coal mined statewide. Bituminous and anthracite surface mining companies produced 13,975,522 tons of coal, which was about 23% of the coal mined in Pennsylvania in 2011.

Bituminous mine operators reported production at 355 mine sites in 2011. That number includes 39 underground mines, 298 surface mines, and 18 coal refuse sites, up from the 336 active bituminous mining operations reported in 2010.

Anthracite mining produced 6,679,045 tons of coal and coal waste produced on 105 mine sites including 45 coal refuse sites. At anthracite sites, 166,383 tons were produced by 11

underground mines, 2,965,137 tons were produced by 49 surface mines, and 3,547,525 tons of coal refuse were removed at 45 sites.

In 2011, 7,461 people were employed in the coal mining industry in Pennsylvania. This is a 3% increase from 2010, when 7,238 people were employed.

IV. Overview of the Public Participation Opportunities in the Oversight Process and the State Program

During this evaluation period, PADEP and OSM continued several ongoing initiatives that provided opportunity for public involvement.

A. Public Involvement in PADEP's Regulatory Process

Citizens Advisory Council

PADEP solicits and/or receives public input on proposed changes to the Pennsylvania mining program from the Citizens Advisory Council (CAC). The Council consists of eighteen appointed citizen volunteers who serve staggered three year terms. The Governor, the Speaker of the House of Representatives and the President Pro Tempore of The Senate appoints these members. No more than half of the appointees are from the same political party. Since its creation in 1971, the CAC has been actively involved in Commonwealth environmental issues. The Council is the only legislatively mandated advisory committee with the comprehensive charge to review all environmental legislation, regulations and policies affecting PADEP.

Mining and Reclamation Advisory Board

The Mining and Reclamation Advisory Board (MRAB) was created in 1984 by Act 181, which amended the Surface Mining Conservation and Reclamation Act (SMCRA), of the Pennsylvania General Assembly. MRAB's purpose is to assist and advise the Secretary of the Pennsylvania Department of Environmental Protection on all matters pertaining to mining and reclamation. The advisory role of the board also covers Title IV of the Federal SMCRA. Title IV is the section of the law that covers abandoned mine land reclamation issues. The MRAB is comprised of the Citizen Advisory Council, the coal industry, county conservation districts, and the Pennsylvania General Assembly. The full board meets four times per year and the subcommittees meet regularly to address a number of coal program areas each year. The meeting minutes, handouts, and MRAB's annual report are available on the MRAB website. To access the web site, copy the following address into your web browser.
<http://www.dep.state.pa.us/dep/subject/advcoun/minrec/MRABhome.htm>

Environmental Hearing Board

The Environmental Hearing Board (EHB) is an independent quasi-judicial agency that includes a Chairman and four members. Members are administrative law judges with a minimum of five years of relevant legal experience. The EHB has the sole power to hear and decide appeals of PADEP's actions. Litigants have the right to appeal EHB decisions to the Commonwealth Court.

Environmental Quality Board

The Environmental Quality Board (EQB) is a 20 member independent board that reviews and adopts all PADEP Regulations. The Board, which is chaired by the Secretary of PADEP, includes members from 11 state agencies, the CAC and the State Senate and House of Representatives. PADEP, through the EQB, requests comments on all proposed regulations and holds public hearings or public meetings to provide citizens with the opportunity to provide input. The EQB addresses all comments received on proposed rules in the preamble of the final rules that are published in the *Pennsylvania Bulletin* and are available for public review on the PADEP Internet site. As part of the development of the regulations required by statute or by regulatory initiatives, PADEP holds outreach discussions or other public meetings to explain regulatory initiatives, where there is significant public interest.

Independent Regulatory Review Commission (IRRC)

The General Assembly passed the Regulatory Review Act in 1982, which established the Independent Regulatory Review Commission. IRRC was created to review Commonwealth agency regulations, excluding the Game Commission and the Fish and Boat Commission, to ensure that they are in the public interest.

The Commission's mission is to review regulations to make certain that the agency has the statutory authority to enact the regulation and determine whether the regulation is consistent with legislative intent. IRRC then considers economic impact, public health and safety, reasonableness, and clarity. The Commission also acts as a clearinghouse for complaints, comments, and other input from the General Assembly and the public regarding not only proposed and final regulation, but also existing regulations. In addition to staff, five commissioners serve as the IRRC. Four are appointed by the General Assembly, and the governor appoints one.

Public Comment in Permit Review Process

PADEP received 533 applications for permitting related actions that required the opportunity for public comment, including 138 NPDES permits. The applicant is required to publish notice of the permit application in the local newspaper. PADEP publishes notices of permit applications and major permit revisions in the *Pennsylvania Bulletin*; notifies local municipal governments of permit applications; and holds public meetings with citizens to discuss pending applications.

Public Comment in the Bond Release Process

PADEP reviewed 858 annual bond calculations and 350 completion report applications during the past year. As part of the required annual bond calculation report, each permittee must notify every property owner of how much of the property owner's land has achieved Stage I, II and III standards during the preceding year. This required notice to the property owner also includes whom in the Department to contact if the property owner disagrees with the adequacy of reclamation.

The permittee must publish each bond release application in a local newspaper once a week for four consecutive weeks. This advertisement must include permittee name, and permit number, precise location and number of acres, total amount of bond and amount of requested release, summarize the reclamation, and state where written comments should be filed. The permittee must also provide proof of notification to surface owners, adjacent property owners, local government bodies, planning agencies and sewage and water treatment facilities. At any time, a citizen may file a complaint with the local PADEP Mining District Office about the adequacy of reclamation or about mining activities. The local PADEP office will contact the complainant within two days and complete the investigation within the next two weeks unless additional time is needed for additional analysis.

Citizen Complaint Resolution

The public submits informal and formal complaints on ongoing and completed mining operations, and bond release requests and about inspection, compliance monitoring and enforcement activity. During the evaluation year, DEP received 231 citizen complaints, 204 of which were investigated, and resolved by the close of this evaluation year. Complaints not resolved may have been referred to other DEP bureaus for action. Complaints can be about many aspects of mining activities including stream pollution from erosion and mine drainage, blasting effects on structures or water supplies, damage to public roads, mining off-permit, dust and other mining issues.

B. Outreach by OSM

General Outreach

OSM continued interacting with citizens, industry and other State and Federal agencies on oversight and State program initiatives. The OSM attended the MRAB meetings to provide input on oversight initiatives and explain new OSM programs.

OSM's Pittsburgh Field Division (PFD) publishes a quarterly electronic newsletter that covers Pennsylvania, Maryland and Ohio. This newsletter has been well received over the years it has been published. The newsletter highlights proposed Federal regulatory changes and policy guidance, court and IBLA (Interior Board of Lands Hearings and Appeals) decisions, the status of state program amendments, findings from OSM oversight studies, interaction with watershed groups and other partners, discussions of AML and AMD reclamation projects constructed, and innovative activities that states are involved in.

The PFD maintains a mailing list of interested Federal and State individuals and agencies, as well as industry staff, private consultants, foundations, non-profit organizations, and individuals interested in coal mining and reclamation and abandoned mine reclamation issues. It utilizes this list to distribute information to stakeholders as appropriate.

REG 8, OSM's Oversight of State Regulatory Programs Directive, provides guidance regarding oversight of approved state programs. This directive requires each field office to develop and conduct an outreach program to solicit comments for the public and interested parties regarding the oversight process, recommendations for additional review topics for the evaluation year and suggestions for improvements of future annual evaluation reports.

In January 2011, REG-8 was revised. Revisions included a schedule for public outreach in developing the yearly Performance Agreement/Evaluation Plan. OSM's web site now solicits public input in a 30 day period from March 1 through March 30, and again from May 1 through May 30. In addition, the performance agreements, oversight studies, and Annual Reports are posted on OSM's web site under Appalachian Region, Pennsylvania.

V. Major Accomplishments and Innovations in the Pennsylvania Program

A. Alternative Bonding System (ABS) Bond Forfeited Permits with Post Mining Discharges

In 2001, PADEP converted from an alternative bonding system (ABS) in which a permit bond was supplemented with a bond pool; to a full cost, or conventional bonding system under which the full cost for reclamation is calculated in the bond. Under the former ABS, permittees were required to pay \$100.00/acre into the bond pool. Even though the bonding system was changed, the reclamation fee was retained at \$100.00/per acre until 2010 as discussed below.

In 2008, Pennsylvania established and funded two new accounts (The Reclamation Fee O&M Trust Account and the ABS Legacy Sites Trust Account as described in 25 Pa. Code 86.17 and 86.187) for constructing and managing mine drainage treatment systems on the permits forfeited under the former ABS program. O&M are the operation and maintenance costs of the ABS mine drainage treatment systems. Per-acre reclamation fees are set yearly depending on the financial needs of the Department in constructing, operating and maintaining mine drainage treatment systems for ABS sites. The Department has set \$3,000,000 as the minimum amount in the Reclamation Fee O&M Trust Account. If the balance exceeds the minimum amount, no increase in the reclamation fee is recommended. If the balance falls below \$3,000,000, an increase in the reclamation fee may be recommended to restore the minimum balance.

Since 2010 the per-acre reclamation fee has been zero, largely because not enough ABS treatment facilities had been constructed to justify re-imposition of the fee. PADEP's draft report for Fiscal year 2012 reports a \$4,077,087.11 balance in the Reclamation Fee O&M Trust Account. Therefore, no reclamation fee will be recommended for calendar year 2013. When all ABS Legacy projects have been constructed and the ABS Legacy Sites Trust Fund is actuarially sound, the reclamation fee will be permanently terminated.

As ABS projects are implemented, revenues and expenses are tracked in order to gather the necessary information to determine the reclamation fee amount. The revenue is specifically related to the reclamation fee, civil penalties and interest. In February 2012, the Department issued its annual Primacy ABS Bond forfeiture Status Report. Highlights from that report follow.

Expenditures from the Reclamation Fee O&M Trust Account from January 1, 2011, through December 31, 2011 totaled \$130,504.85. This is up from the \$34,952.21 reported for 2009, and the \$108,230.70 reported for 2010 and reflects increased operation and maintenance costs as more treatment systems came on line. This represents DEP staff time (\$14,643.15), sample costs (\$5,225.77), a grant to the Clean Streams Foundation for the O&M at the C&K Coal Co. sites (\$38,012.71), including the Racic site (\$25,421.83) and a grant to Headwaters Charitable Trust

for the Orcutt-Smail site (\$493.42), and O&M costs under contracts (\$72,129.80).

The balance in the Reclamation Fee O&M Trust Account as of December 31, 2011 was \$3,591,231.35. Adding civil penalty funds brings this balance to \$4,157,934.88 at the end of 2011. The December 31, 2011, balance in the ABS Legacy Sites Trust Account was \$5,666,778.19. This balance represents an increase in value of \$295,789.09 during 2011. This increase was the result of interest and deposit of collected bonds. The money available from the Released Bond account as of December 31, 2011 was \$2,268,389.44.

The balance in the ABS Land Reclamation Closeout account as of December 2011 was \$3,138,047.32. The committed balance in this account at the end of December 2011 was \$441,180.53. This leaves \$2,696,866.79 for additional project construction.

The December 2011 District Office Summaries for Land Reclamation show 16 ABS forfeited permits with land reclamation remaining, down from the 51 reported in July 2008. Reclamation is underway on seven of the remaining sites, and design is underway on several more. In December 2010, 22 ABS forfeited permits with land reclamation needed remained. In the December 2009 report, 31 land reclamation sites had not been fully resolved. In July 2008, PADEP reported 51 ABS forfeited permits needing land reclamation.

During the evaluation period the Coal Contractor Gowen Mine permit became fully bonded as a result of reclamation activities. This was the last non-forfeited land reclamation permit to transition from the ABS to conventional bonding.

BMR has created a record in the PADEP's data management system (eFACTS) for each ABS bond forfeited Discharge. The records include the quality and quantity data used for the AMDTreat calculations. This new function in the eFACTS database is intended to replace the separate Mine Drainage Inventory.

The transition is beginning from solely using cost estimates based on AMDTreat to using the actual expenses for O & M. In the few cases where preliminary data is available (primarily where DEP is doing the O & M), the actual costs are generally lower than the AMDTreat calculations. However, the AMDTreat calculations will be used for these sites in the overall estimated O & M cost until more data is available. Actual contract/grant costs will also be used to provide a better total cost estimate as the contracts/grants are executed. Staff from the Bureau of District Mining Operations (DMO) conducted operation and maintenance (O&M) activities during 2011 on treatment systems.

The ABS Legacy Sites data base tracks 102 discharges emanating from 60 permits. This list includes four partially funded ABS trust agreements which are treating 22 discharges from 12 permits. These trusts are not solvent, and could be in future financial jeopardy if treatment costs exceed growth generated by investment income. However, if that occurs, continued treatment costs would be the responsibility of the Reclamation Fee O&M Trust Account.

- There are 43 discharges that are being treated with the facilities that are operable. However, a number of the treatment facilities require repair or rehabilitation work. PADEP is working to address those issues through the Reclamation Fee O&M Trust Account.

- PADEP staff performed operation and maintenance at 11 of the completed treatment facilities in 2011. Operation and maintenance contracts with private companies are in place for 14 treatment facilities. Grant agreements are in place with The Clean Streams Foundation and Headwaters Charitable Trust for operation and maintenance at several treatment facilities.
- PADEP continues to monitor the progress in addressing ABS Legacy Discharge Sites, by conducting quarterly meetings to discuss every discharge which does not have a completed or properly functioning treatment system.

A breakdown of the 102 discharges by treatment category follows:

- Treatment system complete – 47
- Treatment system under construction - 14
- Treatment system under design –23
- Work not started –18

Progress continues to be made in installing treatment systems for the ABS forfeited discharges. About 84 discharges (82%) are being treated with functioning systems, or are under construction or design contract. At the end of evaluation year 2011, Seventy one percent (74) of the discharges were being treated, or had reached the design stage. In 2009, 55% (57) of the discharges were being treated or had reached the design stage. It is noted that almost four years after PADEP submitted a program amendment to address the Federal court ruling that continued Pennsylvania's reclamation responsibility for permits forfeited under the ABS (the amendment was approved by OSM in August 2010), 18% of the discharges have not reached the project design stage.

B. Amendments to the Pennsylvania Approved Regulatory Program

During this evaluation year, Pennsylvania submitted one program amendment to incorporate Coal Ash Regulations into its coal mining program, PA-161-FOR. One program amendment, PA-155-FOR, was finalized during the evaluation year and the Final Rule was published in the *Federal Register* on May 2, 2012. There are six State program amendment submissions/packages that are in various phases of the program amendment process. Three of these amendment packages address 17 required program amendments as listed in 30 CFR 938.16. Pennsylvania submitted two program amendment packages in EY 2011 and one in EY2012 to address deficiencies in its program. There are nine remaining required program amendments that require State regulatory program changes. OSM and PADEP remain committed to resolving these required amendments and meet routinely to discuss them. Four of the outstanding required amendments have been submitted to OSM and PADEP upper management for review and recommendation.

This evaluation year's update includes information on program amendment packages spanning over a three year period.

1. Evaluation year 2010 submissions: PA-154-FOR, PA-155-FOR, and PA-156-FOR were submitted. PA-155-FOR was finalized this evaluation year. PA-154-FOR and PA-156-FOR remain in the program amendment process.
2. Evaluation year 2011 submissions: PA-157-FOR, PA-158-FOR, PA-159-FOR, and PA-160-FOR were submitted. PA-158-FOR was combined with PA-156-FOR through the April 4, 2011 *Federal Register* notification and reopening of the comment period.
3. Evaluation year 2012 submission: PA-161-FOR was submitted on March 13, 2012.

All program submissions for evaluation year 2011 and 2012 are in the program amendment process. The individual program amendment packages are discussed below:

PA-154-FOR: On February 24, 2010, PADEP submitted a formal program amendment in the form of a statutory amendment to Pennsylvania's Coal Refuse Disposal Control Act (CRDA), 52 P.S. § 30.51 et seq. Section 4.1(a) of the CRDA was amended by House Bill 1847. The submission requests approval of section 4.1(a) of the CRDA by adding subsection (6) to section 4.1(a). Section 4.1(a)(6) states: An area adjacent to or an expansion of an existing coal refuse disposal site. This amendment would add areas adjacent to or an expansion of an existing coal refuse disposal site, to the list of "preferred sites" for site selection. The proposed rule for PA-154-FOR was published in the *Federal Register*, Vol. 75, No. 118, Pages 34962-34964, on Monday, June 21, 2010.

PA-155-FOR: Final Rule was published in the *Federal Register* on May 2, 2012, Volume 77, Issue 85, pages 25874-25877. Highlights of the amendment: On March 4, 2010, PADEP submitted a required regulatory program amendment to address 30 CFR 938.16 (bbb). The submission is an "As Effective As" argument to address ownership and control requirements for cessation orders. PADEP advocates that its program addresses cessation orders through its violation notice definition. The proposed rule for PA-155-FOR was published in the *Federal Register*, Vol. 75, No. 118, Pages 34960-34962, on June 21, 2010.

PA-156-FOR: On March 17, 2010, PADEP submitted a formal program amendment to address various program deficiencies found at 30 CFR 938.16. The amendment also includes revisions to the regulations relating to Remining Financial Guarantees. The fourteen required program amendments addressed in this program amendment are found at 30 CFR §§ 938.16(rr), (tt), (uu), (vv), (ww), (xx), (zz), (aaa), (ccc), (iii), (jjj), (nnn), (ppp) and (ttt). The program amendment also consists of guidance documents which include topics that are part of the approved program and have been revised. They are 562-4100-301 Compliance/Enforcement Procedures, 562-4100-307 Alternate Enforcement, and 562-3000-102 Coal and Industrial Mineral Mining Inspections. The proposed rule for PA-156-FOR was published in the *Federal Register*, Vol. 75, No. 149, Pages 46877-46880, on August 4, 2010. A reopening of the comment period for the proposed rule was published in the *Federal Register*, Vol. 76, No. 64, Pages 18467-18472 on April 4, 2011. The reopening of the comment period was necessary to incorporate PA-158-FOR into this program amendment.

PA-157-FOR: On August 6, 2010, PADEP submitted a required regulatory program amendment to address 30 CFR 938.16 (uuu). Pennsylvania submitted a program amendment consisting of three parts to address requirements that authorized representatives have the right to enter

operations conducting incidental coal extraction and administrative reviews of the State's determinations are conducted. The three parts submitted are:

- a) Environmental Hearing Board Act (35 P.S. §§ 7511-7516)
- b) 25 Pa Code Chapter 1021
- c) 25 Pa Code Section 77.352

The proposed rule for PA-157-FOR was published in the *Federal Register*, Vol. 76, No. 46, Pages 12920-12923 on March 9, 2011.

PA-159-FOR: On October 1, 2010, PADEP submitted a required program amendment to address 30 CFR 938.16(h). On August 10, 2010, OSM published in the *Federal Register* a requirement for Pennsylvania to demonstrate that it guarantees funding to cover the cost of outstanding land reclamation liabilities at the Lehigh Coal and Navigation (LCN) and Coal Contractors, Inc., and all sites originally permitted and bonded under the ABS. The proposed rule for PA-159-FOR was published in the *Federal Register*, Vol. 76, No. 25, Pages 6587-6589 on February 7, 2011. Pennsylvania provided additional information on June 13, 2011 regarding the transfer of LCN to BET Associates IV, LLC and the subsequent bonding data to reflect the land reclamation obligations are now fully covered under conventional bonding (full-cost bonding). On October 17, 2011, a *Federal Register* notice was published to reopen the comment period.

PA-160-FOR: On October 1, 2010, PADEP submitted a program amendment to address program deficiencies to render its program no less effective than the Federal regulations as they relate to effluent limitations for post-mining discharges that are amenable to passive treatment technology. Included in the amendment are definitions for "Passive Treatment System" and "Post-mining Pollutational Discharge." The proposed rule for PA-160-FOR was published in the *Federal Register*, Vol. 76, No. 56, Pages 16714-16715 on March 25, 2011. This amendment is awaiting the required concurrence from the Environmental Protection Agency (EPA), Region III.

PA-161-FOR: On May 24, 2012, PADEP submitted a program amendment to incorporate Title 25, Chapter 290 Coal Ash Regulations into its approved program. The program amendment consists of the definition of "Coal Ash" from Chapter 287 and the Beneficial Use of Coal Ash regulations as found in Chapter 290, Subchapters A, B, C, and D. OSM requested concurrence from EPA, Region III for this program amendment.

PFD and PADEP remain committed to a cooperative effort to address the backlog of required program amendments. In 2007 there were approximately 40 required program amendments. Significant progress has been made and at the end of the 2012 Evaluation Year, PFD and PADEP had completed work on all except nine required amendments. The remaining amendments consist of a varying range of issues including the valuation of collateral bonds, retention of sediment control structures, determining success of establishing trees, pre-blast surveys, and restoration of prime farmland.

C. PADEP Reorganization

On September 20, 2011, the Secretary of the PADEP announced a major reorganization. Among

other revisions affecting oil and gas, brownfields clean-up, and pollution prevention, PADEP combined stream restoration activities in a newly created Bureau of Conservation and Restoration (BCR). The new bureau incorporated staff that had, until the reorganization, been assigned to the AMD Set-Aside Program administered by the BAMR. While the new bureau will implement the provisions of the AMD Set-Aside Program, the BAMR will continue to manage the associated grant activities.

During the evaluation year, BCR identified staff and developed a functional structure. BCR is now organized in two divisions; Watershed Restoration Division and Conservation Division. The Watershed Restoration Division contains the AMD Set-Aside Program that was formerly part of the BAMR. The BAMR continues to manage the land reclamation activities related to addressing health, safety, and environmental problems.

OSM and BCR held discussions and visited some completed AMD Set-Aside Program sites during the 2012 review period. OSM provided BCR with an overview of SMCRA program components, federal policy and regulatory requirements, and cooperative oversight/assistance efforts performed in previous years. BCR advised OSM that priority will be given to focusing resources within watersheds that will be responsive to treatment and leveraging other State and federal funding sources. BCR is committed to maintaining the accomplishment attained with existing treatment systems. Finally, BCR will be developing an action plan that will map out efforts through the coming year and provide a foundation for continuing into the future. Major components of the action plan will include:

- Evaluation, revision and finalization of the Set-Aside Program AMD treatment guidelines,
- Evaluation of current project priorities and establishment of a list of priority watersheds and projects,
- Identification of maintenance, repair and operational needs for existing and new treatment facilities.
- Addressing long-term operations and maintenance needs for existing treatment sites, and;
- Development of a grant process to provide funding to eligible organizations for projects that will help the BCR achieve its mission.

D. Growing Greener

Growing Greener is the largest single investment of state funds in Pennsylvania's history to address Pennsylvania's critical environmental concerns of the 21st century.

The original Growing Greener legislation was signed into law on December 15, 1999. Called the Environmental Stewardship and Protection Act, funds were allocated for farmland preservation, state park and local recreation projects, waste and drinking water improvements, and watershed restoration programs.

In June 2002, legislation increased the funding for Growing Greener, and extended it until 2012. Though authorized funding levels were established, revenue shortfalls affected actual spending, and the program was in danger of running out of funds.

In 2004, the Growing Greener II initiative and a bond issue resolution were placed on the

statewide voting ballot. In May 2005, Pennsylvania residents approved the resolution with 61% of the vote. This authorized the Commonwealth to borrow up to \$625,000,000 for the maintenance, and protection of the environment, open space and farmland preservation, watershed protection, abandoned mine reclamation, acid mine drainage remediation and other environmental initiatives. This extended the program, and provided continued funding for environmental restoration projects.

Funds are allocated to a variety of government agencies for award to selected projects. BAMR is authorized to allocate a portion of Growing Greener funds for mining related watershed restoration and protection, and for abandoned mine reclamation.

Abandoned coal mine land and water reclamation projects funded by Growing Greener can be designed, contracted and administered through BAMR, or administered through grants to municipalities and watershed groups awarded by PADEP with oversight and technical assistance provided by BAMR and DMO staff. Since 1999, BAMR has received about \$29.7 million from the original Growing Greener program. Under the Growing Greener II program, BAMR has awarded 52 contracts totaling \$94.7 million that includes \$49.4 million from Growing Greener II and \$45.3 million from the OSM AML grants and other sources.

E. Appalachian Regional Reforestation Initiative (ARRI)

The Appalachian Region Reforestation Initiative (ARRI) is a joint effort of Appalachian States, and the OSM Appalachian Regional Office. The initiative also includes partnerships with coal industry representatives, academia, landowners, environmental organizations and various governmental agencies. The goals include planting more high value hardwood trees, increased tree survival and increased tree growth and productivity.

The initiative promotes the Forestry Reclamation Approach (FRA). This involves the planting of higher quality trees, minimum compaction of the reclaimed ground, the use of native as well as non-competitive ground covers and proper tree planting techniques.

OSM is working with PADEP introduce ARRI to Pennsylvania. Small, demonstration projects have been initiated in all Districts, and in the AML program. While some of the sites are small acreages, it is hoped they will encourage the continued program growth in the mining and reclamation program.

Mine Permit Reforestation



From the left, Ben Owens, Chief, OSM's Pittsburgh Field Division; Richard Cardinale, Executive Staff Assistant to the Assistant Secretary; Joe Pizarchik, Director, OSMRE; Marcilynn Burke, Acting Assistant Secretary for Lands and Minerals; and Sara Fitzsimmons, The American Chestnut Foundation. **The group is instructed on the proper way to plant back cross American Chestnut seeds, at a prepared mine site in Schuylkill County, Pennsylvania. Fencing is erected to protect young trees from deer. These seeds are the most advanced blight-resistant back-cross currently available.**

On Friday, April 27, 2012, a tree planting event was held at the Michael Coal Company permit in Schuylkill County, which the operator had prepared for planting using the Forestry Reclamation Approach (FRA), as advocated by the Appalachian Region Reforestation Initiative (ARRI). This 22 acre permit was previously mined and reclaimed with grass in accordance with the permit requirements. However, local water authority officials and residents wanted trees to be planted to help reduce long term surface runoff, and flooding issues in the nearby downstream town of Tremont. To improve the site for tree planting, the operator, using a large dozer, ripped the site, creating a deep, less compacted, planting zone for the trees. The area was then planted with trees by a professional planting company. A one acre fenced site was also selected for planting blight resistant American Chestnut seeds. This site was planted by the tour group and a host of other volunteers. The American Chestnut Foundation supervised planting of the seeds, and each one will be located by GPS, and monitored over the coming years to determine survival, growth, and ultimately, blight resistance.

F. Other Initiatives and Accomplishments

Unsuitable for Mining Petitions: One UFM designation was added to the regulations during the evaluation year:

Muddy Run Watershed, Reade Township, Cambria County. A technical study was done in response to a petition submitted in 1996 by the Reade Township Municipal Authority to designate 3,690 acres as unsuitable for surface mining. The petition alleged that surface mining activities could result in degradation of surface and groundwater resources used by the Authority water supply wells which serve 550 customers. Designation was approved by the Environmental Quality Board (EQB) on May 18, 2011, and the designation of certain coals within the petition area as unsuitable for surface mining became effective on August 27, 2011.

PADEP has eight petitions under review to designate areas Unsuitable for Mining:

Big Run and Wilholm Run Watersheds, Graham Township, Clearfield County. The petition, submitted by the Graham Township Supervisors in 1993, requests that a 2,800 acre tract within the Big Run and Willholm Run watersheds be designated as unsuitable for surface mining. The petition alleges that surface mining within the area would adversely affect the watersheds and diminish recreational opportunities in the area. DEP staff are completing a technical study of the petition area, and will initiate the rulemaking process if a positive decision is made regarding designation. A proposed rulemaking could proceed later in 2012.

Silver and Big Creek Watersheds, Blythe Township, Schuylkill County. A petition was received from Blythe Township Municipal Authority in 2006 to designate 336 acres of land within the watersheds unsuitable for surface mining, but the initial review has not been completed. Processing of the petition will proceed according to a priority system.

Rasler Run Watershed, Springfield Township, Fayette County. A petition from the Mountain Watershed Association was received in 2008 to designate 4,456 acres of land within the watershed unsuitable for surface mining, but the initial review has not been completed. Processing of the petition will proceed according to a priority system.

Lower Indian Creek Watershed, Fayette County. A petition was received on May 4, 2010, from the Mountain Watershed Association to designate 8,655 acres of land within the watershed unsuitable for surface mining, but the initial review has not been completed. Processing of the petition will proceed according to a priority system.

Laurel Run Watershed, Springfield Township, Fayette County. A petition was received in April 2011 from the Mountain Watershed Association to designate 7,275 acres of land within the watershed unsuitable for surface mining, but the initial review has not been completed. Processing of the petition will proceed according to a priority system.

Upper Laurel Hill Creek Watershed, Jefferson, Lincoln, Somerset and Milford Townships, Somerset County. A petition was received in December 2011 from the Mountain Watershed Association to designate 24,320 acres of land within the watershed unsuitable for surface mining, but the initial review has not been completed. Processing of the petition will proceed according to a priority system.

Trout Run Watershed, Rush Township, Centre County. A petition was received from the Pennsylvania American Water Co. and the Moshannon Creek Watershed Coalition on Feb. 12, 2012, to designate 7,395 acres of land within the watershed unsuitable for surface mining, but the

initial review has not been completed. Processing of the petition will proceed according to a priority system.

Back Creek Watershed, Fayette County. A petition was received in May 2012 from the Mountain Watershed Association to designate 7,040 acres of land within the watershed unsuitable for surface mining, but the initial review has not been completed. Processing of the petition will proceed according to a priority system.

Underground Mine Mapping Projects:

PADEP and OSM both fund projects with the University of Pittsburgh (Pitt) for the preservation of old underground mine maps and with the Indiana University of Pennsylvania (IUP) for the scanning of old underground mine maps. These maps are important for the safe development of future underground mines in order to prevent mining incidents like the 2002 Quecreek Mine accident. The projects are coordinated by the California District Mining Office as part of the Underground Mine Map Initiative to inventory all known maps of underground coal mines in Pennsylvania.

A 2007 agreement with the University of Pittsburgh provides for the restoration and preservation of historical abandoned underground coal mine maps (donated to Pitt by Consol Energy, Inc.) to facilitate scanning and stabilize the maps for long term storage. These maps are then transported to the National Mine Map Repository (NMMR) in Pittsburgh for scanning.

Through July 2012, the University of Pittsburgh (Pitt) has produced the following:

- 501 hardback maps have been dry cleaned, restored and transported to OSM's NMMR for scanning.

In addition to the cleaning:

- 155 of the maps were humidified and flattened;
- 213 of the maps were mended;
- Tape was removed from 96 maps;
- 26 maps were partially relined;
- Adhesive was reduced on 65 of the maps;
- Mold was removed on 2 of the maps;
- 13 of the maps were washed;
- 15 of the maps were fully relined, and
- Stain reduction was performed on 2 of the maps.

In August of 2010, Pitt was awarded another mine mapping grant to continue these efforts.

PADEP's Intergovernmental Agreement with Pitt will continue through September 30, 2013, or until a competitive, statewide mine mapping grant program is in place to fund this activity.

Indiana University of Pennsylvania (IUP) was awarded a mine mapping grant to scan the large format maps from the Rochester & Pittsburg Coal Company map collection located at IUP; develop a secure and redundant database of scanned mine map images, and produce a complete database of all known mine maps for Armstrong County. IUP has also scanned over 1,100 maps from the Rochester & Pittsburg Coal Company map collection and over 3,500 large format maps from various collections held by PADEP and others.

PADEP's work with IUP has resulted in the California District Office being able to complete the first comprehensive underground mining coverage for Armstrong County. This coverage was added to an internal web site, which is used by PADEP staff to determine the need for mine subsidence insurance. This data was also used to create maps accessible to the public through the Mine Subsidence Insurance web site, www.pamsi.org.

PADEP continues to fund the Intergovernmental Agreement with IUP through its end date of September 30, 2012. A grant program is expected to be in place later in 2012 to fund underground mine mapping projects at interested schools and non-profit organizations as funding is available.

Collection and preservation of historic underground coal mine maps is important to PADEP, industry, watershed groups, and individual citizens in permitting new underground coal mines, determining the location of abandoned underground coal mines when evaluating mine discharges, determining the causes for surface subsidence, and setting no mining buffer zones between underground mines.

DEP also plans to make mine maps available to the public on the Internet through Pennsylvania Spatial Data Access (PASDA) at the Pennsylvania State University.

<http://www.pasda.psu.edu/default.asp>

Fourth 5-Year Report on the Surface Effects of Underground Mining: DEP is finalizing a contract with the University of Pittsburgh for work on the fourth five-year report as mandated by Pennsylvania law known as ACT 54 of 1994, which amended the Bituminous Mine Subsidence and Land Conservation Act (BMSLCA) of 1966.

The Act 54 5-Year Report provides important information and analysis to the Pennsylvania legislature, PADEP, and individual citizens regarding the impacts of underground coal mining activities on Pennsylvania's environmental resources, people and property. Of particular interest are the impacts of full extraction mining on streams and property. The reports may be accessed through the following web link.

http://www.portal.state.pa.us/portal/server.pt/community/act_54/20876

NPDES Permitting for mine sites: The mining program has focused its attention on improving the documentation for NPDES permit reviews. This is necessary due to recent initiatives by EPA

and OSM. Efforts focus on dealing with the conductivity/TDS requirements and reasonable assurance of meeting the state water quality standards.

Clean Water Act Section 404 Compliance. OSM notes that PADEP has revised permit application Module 14 Streams/Wetlands, to identify when the permit involves a stream/wetland encroachment and more clearly define permittee responsibilities to apply for a Section 404 stream encroachment permit from the Corps of Engineers. Form 14A was also added to the Module, and is a request for 401 Water Quality Certification from the District Mining Office. OSM evaluates a permittee's compliance with Section 404/401 requirements of the Clean Water Act where stream and wetland encroachments are found during oversight inspections.

G. Title IV of SMCRA AML Reclamation

The Pennsylvania Title IV Abandoned Mine Land Program was approved in July 1982. Even before 1982, Pennsylvania had already put forth years of committed effort to reclaim abandoned mine lands throughout the Commonwealth with a special state funded reclamation program known as Operation Scarlift.

In the first decade of the approved program, Pennsylvania primarily addressed priority one and priority two health and safety hazards through traditional reclamation contracts. Starting in the early 1990's the Pennsylvania AML program diversified and incorporated other agencies and organizations into productive partnerships. This provided Pennsylvania with the opportunity to expand the scope of government financed reclamation opportunities and thus reclaim more AML acreage faster and with greater efficiencies.

Pennsylvania's AML program continued to make progress in traditional areas of abandoned mine land reclamation such as dangerous highwall removal, subsidence control, and sealing shafts and portals.

Specific accomplishments for this evaluation period include completion of 17 major projects for a total of 720 acres of land reclamation. The total construction cost for these projects is \$16.3 million and included \$6.2 million of non-Title IV matching funds. Reclamation included 44,000 linear feet of dangerous highwalls, numerous deep mine shafts and entries, three water line extension projects to address impacted drinking water supplies, and a mine fire control project.

During the year, contracts were awarded on 21 new projects at a cost of \$12.4 million. At the end of the evaluation period the Bureau of Abandoned Mine Reclamation (BAMR) had 45 projects under construction at a total cost exceeding \$52.1 million. Upon completion, these projects will address approximately 1,075 acres of abandoned mine land. Preparing for future reclamation, BAMR has approximately 110 projects in some stage of design and approximately 96 under development.

Anthracite District and Bituminous District (AD/BD) State Workforce Programs

Pennsylvania addressed many smaller AML problems this year with two special state employee work crews; located in the Wilkes-Barre and Cambria offices (Anthracite District & Bituminous District, respectively). These small state workforces conduct maintenance activities and address small AML problems that are not suited for the more complicated and expensive contractual

bidding approach used for traditional site reclamation.

The Bituminous District (BD) crew is located at the Cambria Office in Ebensburg is made up of two Construction Foremen and five Equipment Operator B's. The BD Crew is called upon to correct a variety of AML problems that pose health and safety concerns to the public. These projects address: mine subsidence holes, single home stabilization projects, stray gas / mine gas problems, abandoned surface mines, acid mine drainage, dangerous slides, impoundments, clogged mine drains, mine blow outs and mine fires. During the past year, the BD crew has completed over 130 projects, including 40 accelerated projects addressing the kinds of problems that were previously addressed by OSM's emergency response program. The BD Crew also has provided assistance at the Department's active treatment plants and passive treatment systems.

The Anthracite District (AD) Crew, located in the Wilkes-Barre Office, consists of three people; a foreman, an operator and a maintenance repairman. Though small, the AD Crew is available to address a variety of Abandoned Mine Land (AML) related problems. AML problems previously abated by the AD crew range from maintaining (filling-in) recovered vertical shafts that have settled, to removing debris or repairing ditches which have become clogged by weather related events. During this review period, the AD Crew completed 41 projects.

Bulls Head Road Subsidence AD Project Norwegian Township, Schuylkill County Pennsylvania

In February 2012, the Anthracite District in-house Construction Crew (AD crew) of the Wilkes-Barre BAMR District Office completed a project to address a subsidence that was threatening to undermine a shed in the backyard of a residential neighborhood. Access to the subsidence was restricted by property lines and structures, the access area was perpetually wet, and the area was too soft to support large, heavy equipment. The AD Crew overcame these challenges by utilizing newly acquired low-compression panels, designed to permit access to areas such as these. Utilizing a small truck and trailer, the AD Crew placed R-4 stone in the subsidence and topped the area with topsoil, prior to seeding and mulching the affected area.





Bulls Head Road Subsidence

Cronauer Abandoned Surface Mine Reclamation BD Project Chest Township, Cambria County, Pennsylvania

The Cronauer BD Project is an example of the type of small surface mine reclamation problems that can be addressed by the BD crew. The site is located in Chest Township, Cambria County.

The dangerous vertical highwall was located in close proximity to a residence and adjacent to State Game Lands.



Dangerous Highwall Area



Cronauer BD Project Post Reclamation

The site required backfilling of 13,500 cubic yards of spoil material to eliminate 300 feet of hazardous highwall. The site was then graded, seeded and mulched. The 2.1 acre project was completed at a cost of \$13,881.62.

Accelerated Reclamation Projects

In May 2010, OSM notified Pennsylvania that effective the start of fiscal year 2011, it would no longer investigate and conduct emergency reclamation projects under Section 410 of SMCRA. In order to respond effectively and protect Commonwealth citizens, Pennsylvania adjusted their project investigation, development, and construction process to accelerate reclamation activities on sites that were addressed by the OSM emergency response program in prior years.

Since Section 410 of SMCRA does not extend the authority to declare emergency actions to the states, the BAMR met with the OSM Pittsburgh Field Division and worked out procedural arrangements to accelerate project review and approval actions so that reclamation of certain sites could be expedited.

During the 2012 evaluation period, BAMR responded to 64 problems where an accelerated response was deemed necessary and has completed or initiated the necessary repairs on 62 sites. During the review period OSM expedited agency evaluations of the projects needing an accelerated response. Subsidence issues represent the vast majority of expedited actions taken by BAMR to address immediate health and safety threats to persons and property. Other problems addressed include flooding (mine blow-out), dangerous mine openings, an underground mine fire, and hazardous mine gasses. BAMR has established procedures to respond to urgent AML problems. In many cases expedited response by the Anthracite Division (AD) and Bituminous Division (BD) crews is sufficient to perform the reclamation. In some cases, BAMR expedites contracting to address specialized or large projects or to overcome scheduling or time constraints of the AD and BD crews.

**Boydton Construction Accelerated Reclamation Project
Coal Township, Northumberland County PA**

During the evaluation period, BAMR completed the Boydton Construction Accelerated Reclamation Project to quickly address a mine tunnel blowout caused by water infiltration from Tropical Storm Lee. The site is the location of the abandoned Luke Fidler mine tunnel.

A 10-foot diameter manhole riser section was constructed over the discharge and a 48-inch reinforced concrete pipe installed to convey the water to an existing drainage. The site was restored to its original contours and seeded. The project was funded by the Title IV AML Program. The project is one of many examples of how BAMR and OSM collaborate to expedite project development, design, administrative reviews, and construction to expeditiously address AML problems causing a serious immediate risk to public safety.



**Vintondale Fourth Street Subsidence Accelerated Reclamation Project Vintondale
Borough, Cambria County, Pennsylvania**

Completed in September, 2011, the Vintondale 4th Street subsidence project reclaimed a Priority 2 subsidence cave hole that was approximately 15 feet wide, 10 feet deep and swallowed up the front end of a small Chevrolet sedan. The event resulted in a street closure. This Accelerated Reclamation Project project permanently stabilized the roadway by backfilling the subsidence cave hole with stone sub base material. Vehicles were re-directed away from the subsidence area until the project was completed to prevent any further collapsing. The total construction cost was \$3,353.



Vintondale Before and After Reclamation

AML Enhancement Rule Projects

Pennsylvania leads the nation in achieving reclamation under the AML Enhancement Rule promulgated by OSM on February 12, 1999. The AML Enhancement Rule greatly boosts the number of Abandoned Mine Land acres that Pennsylvania can reclaim within its budget by allowing contractors to recover and sell coal as part of the reclamation contract.

The 1999 “AML Enhancement Rule” was an amendment to the Federal Regulations to allow incidental coal removal on Title IV AML reclamation projects in the cases where there is less than 50 percent government financing. It is expected that income from the sale of this coal will reduce the contract’s cost to the State and AML Fund.

Prior to this rule change, SMCRA Title IV AML reclamation projects that involved incidental coal removal were required to have at least 50 percent of the cost of reclamation provided by a governing agency’s budget. The purpose of this regulatory change was to encourage reclamation of Title IV eligible sites that are unlikely to be reclaimed under an AML grant-funded

reclamation project or a Title V surface mining permit.

Many low-rated health/safety and environmental problems would otherwise go unreclaimed because scarce grant funds would be expended on higher-priority projects and re-mining operations would avoid the area because of the potential risks posed by marginal coal reserves and/or long-term liabilities associated with pre-existing pollutional discharges or other environmental concerns.

Removing the minimum 50 percent government funding threshold in projects involving coal removal incidental to an AML reclamation contract, encourages reclamation of additional AML at little cost to the public. According to cumulative information provided by PADEP for previous reports, 340 GFCC project applications have been submitted since the program's inception.

During the evaluation year, 20 AML Enhancement Rule projects were completed reclaiming 140 acres of surface mine affected lands and 47.8 underground mine affected acres. The completed projects represent approximately \$1.3 Million in reclamation savings to the AML program. Completed projects reclaimed barren land, eliminated 11,900 feet of abandoned highwall and addressed mine subsidence features. PADEP approved 15 complete applications. During the evaluation year, PADEP accepted 10 new applications. PADEP has a rigorous site review and application process. PADEP includes OSM in the initial pre-application site review and the public in the review of the application. During the period, PADEP did not reject any formal applications. PADEP rejects applications for reasons that may include site eligibility problems, incomplete documentation, and potential water-related problems. Applications are occasionally withdrawn by the applicant or are simply not pursued to contract.

Pennsylvania's AMD Set-Aside Program

As of May 31, 2012, Pennsylvania has a balance of \$47,614,506 in the AMD Set-Aside fund. The total accumulated revenue with interest that has been placed into the fund since inception is \$93.5 million. Within the fund, Pennsylvania has established an O&M Treatment sub-category to allow for the build-up of funds specifically earmarked for the long-term operation and maintenance of AMD treatment systems. To date, including interest, a balance of \$4,598,222 has been reserved for this purpose.

As discussed in a separate section of this report, the PADEP combined all of stream restoration activities in a newly created Bureau of Conservation and Restoration (BCR). During the evaluation period, the new BCR developed staffing plans and an organizational structure. Going forward, the new bureau will implement the provisions of the AMD Set-Aside Program in Pennsylvania.

Pennsylvania's AMD Set-Aside Activities

During the evaluation period, Pennsylvania completed the construction of two large active treatment plants; the Hollywood Mine Drainage Treatment Facility in Clearfield County and the Lancashire No. 15 Treatment Facility in Cambria County. While funding for construction was provided by a combination of state and federal sources, each plant will receive significant funding from the AMD Set-Aside trust account towards operation and maintenance. Upon completion of construction and initiation of treatment, up to 20 million gallons per day (MGD) of AMD will be treated and more than 60 miles of impacted streams will be restored or improved

by the two plants currently in construction.

Lancashire No. 15 Treatment Facility

The Lancashire No. 15 Treatment Facility has replaced the 40 (plus) year old Barnes and Tucker (B&T) Duman's Treatment Facility and uses hydrated lime and dense sludge technology to treat low pH/highly acidic water that is pumped out of an underground mine pool.

The Lancashire #15 Treatment Facility in Cambria County is in the headwaters of the West Branch Susquehanna River. This facility, along with the BAMR funded Barnes-Watkins refuse pile removal project, completed in 2008, will restore a fishery to the Upper West Branch and will improve water quality in at least 35 stream miles. The BAMR, in partnership with the Susquehanna River Basin Commission (SRBC), relocated the existing Lancashire #15 discharge from the Blacklick Creek (Ohio River basin) watershed to the West Branch Susquehanna River. The facility will return up to 10 MGD to the Susquehanna River to address the agricultural consumptive use water demands. The SRBC is providing some funds through appropriation from the state legislature to help offset the long-term operation and maintenance costs.

The Susquehanna River Basin Commission (SRBC) and the United States Army Corps of Engineers (USACOE) have previously requested that the facility's "real time" effluent discharge rate and pH values flowing into West Branch Susquehanna River to be posted on the internet. The effluent discharge rate and pH value can be view by accessing the following link:

<http://www.cleanstreams.net/status>

Since the plant first became operational on November 8th, 2011, 7.5 million gallons of AMD per day have been extracted from the flooded abandoned deep mine workings, treated, and then discharged into the West Branch Susquehanna River. The pumping of the abandoned mine maintains a safe mine pool elevation (to eliminate mine pool blow out potential) while providing on average 8.1 pH treated water to the river. The plant is owned and operated by the Clean Streams Foundation, (CSF), in which the PADEP oversees the CSF trust fund's usage.

Along with \$2 Million of Growing Greener funds, this project was funded with AMD Set-Aside Funding which comes from Pennsylvania's AML Grant administered by the Federal Office of Surface Mining. To date, the total construction amount to build the plant is at \$12.8 Million. The operation and maintenance costs for the plant for the period of February 1, 2012, to April 12, 2012, was \$121,000 consuming 200 tons/month of hydrated lime and 1 ton/ month of polymer.



Lancashire 15 AMD Treatment Plant

Hollywood AMD Treatment Plant

Construction of the Hollywood AMD Treatment Plant in Clearfield County was initiated in June 2010, and it began operation in June 2012. The plant is located along the Bennett Branch Sinnemahoning Creek, in an area known as PA Wilds. This area was identified as a prime area for increased tourism due to its undeveloped nature, extensive public lands and for being the center of the habitat range for Pennsylvania's growing elk herd. Construction of a treatment facility to address significant AMD is an important initiative that promotes unique the recreational opportunities of the region.

Bennett Branch is degraded by mine drainage from numerous abandoned deep and surface mine discharges. An extensive evaluation by BAMR staff determined that the sources of AMD pollution were focused in three areas and determined that a combination of AMD treatment and surface reclamation was needed to restore the watershed. The centralized active treatment plant was constructed to treat the 21 most significant discharges in the Hollywood/Tyler area. The discharges are routed to the plant via installation of a pipeline.

The flow into the plant will vary seasonally between 5.5 and 10 million gallons with an average of 7 MGD. The treatment system will utilize hydrated lime, using between 1.5 and 10 tons per day of lime during operation. The process will produce between 3,000 and 15,000 gallons of sludge per day, which will be pumped to disposal boreholes via approximately 5,125 feet of pipeline.

During initial operation, the treatment plant operated only during the 8-hour work day when the facility was staffed. Restricted operation was necessary until the telephone and automated alarm

systems became fully functional. In June 2012, all systems were functional and continuous treatment was initiated. The treatment facility was constructed for approximately \$14.2 Million. The operation and maintenance cost is anticipated to be approximately \$400,000 annually and will be funded by the AMD Set-Aside Program.

Three sources have participated in project funding; Pennsylvania's Capital Budget, Pennsylvania's Growing Greener Program, and the AMD Set-Aside Program. The plant will help restore the lower 33 miles of the Bennett Branch Sinnemahoning Creek, which is impaired due to mine drainage impacts.

Bennett Branch is being monitored to assess the improvements to the stream. With the increased alkalinity added by the Hollywood Plant, the impacts of Caledonia Run and Dent's Run on Bennett Branch will also be assessed.



Hollywood AMD Plant - May 2011

Cresson AMD Treatment Plant

Future plans for the AMD Set-Aside fund in Pennsylvania include the design and construction of the Cresson AMD Treatment Plant in the Clearfield Creek Watershed in Cambria County, which is also part of the agricultural mitigation effort in the Susquehanna River Basin. The AMD problem is too large to address with passive facilities. The PADEP contracted with a design professional to do the preliminary design evaluation associated with the Cresson treatment plant design. The report was completed at the end of this evaluation year. Also during the evaluation period, exploratory drilling was been completed to determine how to connect three adjacent mine pools for treatment at a single location.

Wehrum AMD Treatment Plant

Funding from the AMD Set-Aside Program will be partnered with funding from Pennsylvania's Capital Budget to start the design and construction of a large active mine drainage treatment

plant in Buffington Township, Indiana County. The plant will ultimately address three large mine discharges that will be combined in order to be treated by the new facility. Treatment of these three major deep mine discharges will restore the main stem of Blacklick Creek. Extensive study and exploratory drilling has been completed to show the project to be technically and scientifically viable. Currently, the project is nearing the property acquisition stage with the initial phases of the project to combine the mine discharges following shortly thereafter.

**Newtown South II AML Project
Reilly Township, Schuylkill County PA**

During the evaluation period, BAMR completed reclamation of 54 acres of abandoned mine lands related to the Indian Head Coal Company. The strip mining in the project area was conducted by Philadelphia and Reading Coal and Iron Company at their Blackwood Colliery and mining ceased in 1963. This project site is located on State Game Lands, in Reilly Township, Schuylkill County, Pennsylvania, and is adjacent to one of a group of some 13 AML projects previously reclaimed as part of the Swatara Watershed Restoration.

The project reclaimed nine abandoned stripping pits; five of which had dangerous highwalls and four that contained hazardous water bodies. The total length of dangerous highwall reclaimed is 3,500 feet. The project also required the backfilling and grading of the stripping pits with approximately 260,000 cubic yards of material obtained on site and the draining and backfilling of the hazardous water bodies. Three polluted mine water seeps were also addressed. The seeps are now being passively treated using limestone beds and constructed wetlands. Additionally, three vertical openings were reclaimed as part of this project by backfilling two of them and installing a bat gate on the third.

The project was funded as a partnership with the Title IV AML Program and the Pennsylvania Growing Greener 2 program at a price of \$707,000.



Newtown South II Reclamation Project

Bituminous Region AML Project

Normalville South Project Springfield Township, Fayette County, Pennsylvania

The Normalville South reclamation project addressed a dangerous slide area along Hawkins Hollow Road. The landslide affected the stability of the lane adjacent to the out slope. The Springfield Township had repeatedly worked on the area trying to achieve stability. The underlying AML problem was the lubricating effects of mine drainage water from an abandoned underground mine in the Lower Kittanning Coal Seam with the naturally steep topography. AMD was present in the slide area and also in the road open channel drainage ditch on the in slope lane of the roadway. During the spring of 2007 the slide moved 12 inches down causing a more serious hazard to local motorists and elevating it in the project section process. The project was completed in approximately six months on July 11, 2012, for just under \$450,000.



Unstable Road Slide Area



Road Stabilization



Completed Project

Pennsylvania AML Inventory Activities

Pennsylvania is a large state with many AML problems. Currently, OSM's Abandoned Mine Lands Information System (e-AMLIS) shows that 37 of the 67 counties have remaining reclamation. The BAMR conducts AML Inventory activities in all three of the agency locations – Harrisburg (main office), Wilkes-Barre, and Ebensburg (Cambria Office).

Information concerning unfunded AML problems is gathered as part of site investigations by field staff. Once a BAMR investigation is complete and it is determined that the site qualifies for entry into the AML Inventory of unfunded problems, BAMR staff completes the data entry into an internal database system developed by the Commonwealth that services the full range of PADEP programs. The internal system (eFACTS) contains cost information, site assessments, and support forms needed to qualify an AML problem for entry into the AML Inventory. Data entry into e-AMLIS is primarily accomplished through a single staff person in the Harrisburg main office. When AML projects are initiated and receive an Authorization to Proceed (ATP) and when they are completed, BAMR updates e-AMLIS to reflect the changes in reclamation status and cost.

OSM opened the new e-AMLIS system to the States in the final quarter of the EY2011 evaluation year. During the 2012 evaluation year, BAMR conducted the full range of AML Inventory update activities required for identifying, developing, and executing AML reclamation projects. BAMR entered over 40 new AML problem areas into the Inventory and regularly revised existing Problem Areas to reflect project construction and completion. PFD and BAMR collaborated on Inventory update reviews to learn the new system requirements and pending update procedures. PFD conducted the required review and approval responsibilities for new Problem Areas and monitored BAMR's routine update activities for existing Problem Areas.

PFD and BAMR are planning to develop new coordination procedures when OSM issues revised guidance on AML Inventory procedures. PFD and BAMR have been operating under outdated guidance since the new e-AMLIS became operational in 2011. The existing guidance does not contain keywords, definitions, and procedures that became necessary when OSM issued new AML rules in November 2008 and performed system modernization in 2008 to 2010. During the

review period, BAMR sent correspondence to OSM expressing frustration with the outdated guidance and urged the issuance of a final guidance document for e-AMLIS and AML Inventory maintenance.

2012 Abandoned Mine Lands Project Reviews

OSM conducts site reviews of AML projects to understand how PADEP controls the reclamation process and to determine whether the program is meeting stated goals and objectives. During the evaluation year, the PFD conducted 25 site visits to approved AML projects during various phases of completion. When possible, site visits were coordinated with BAMR which is offered the opportunity to accompany OSM during the review. OSM gathered information on site status, BAMR monitoring, overall project success, and the existence of actual or potential problems. The site visits conducted by OSM included 18 construction phase reviews and 7 final phase reviews. Overall, OSM reviews confirm that BAMR successfully manages the AML project reclamation process. BAMR develops effective designs and monitors contractor performance to ensure that the projects meet the goals and objectives of the AML program. In addition to the 25 routine project reviews, the PFD conducted 32 field reviews in support of the 120 AML project authorizations issued during the evaluation period. Project authorization field reviews are scoped to look at the potential impacts of project construction activities on environmental resources and to confirm that site assessments supporting agency findings under the National Environmental Policy Act are complete and accurate.

VI. Success in Achieving the Purposes of SMCRA

OSM's national regulatory program oversight guidelines known as REG-8 requires an evaluation of off-site impacts, reclamation success, and a component of customer service in its annual oversight work plan with PADEP. Summaries of those evaluations and other significant program evaluations are discussed below.

A. Off-Site Impacts

OSM Directive REG-8, Oversight of State Regulatory Programs, requires an annual evaluation of the success of mining and reclamation as determined by the number and severity of impacts outside of the mining permit boundary. This information is one of OSM's Government Performance Results Act (GPRA) program performance measures. Off-site impact information is presented in Table 5 of this report. The information presented in Table 5 comes from PADEP's data management system, e-FACTS. OSM validates data reported by PADEP using OSM oversight inspections, and specific inquiries regarding individual data. Off-Site Impacts are grouped as impacts on people, land, water, and structures, and includes blasting, land stability, hydrology, encroachment, and other impacts. Severity is determined as minor, moderate and major.

An off-site impact is defined as anything resulting from a surface coal mining and reclamation activity or operation that causes a negative effect on resources (people, land, water, and structures.) To count as an off-site impact, Pennsylvania must regulate or control the mining or reclamation activity causing an off-site impact. In addition, the impact must be outside the area

authorized by the permit for conducting mining and reclamation activities. Areas within the permit boundary, in which mining is prohibited, are also subject to off-site impact assessment.

The impacts are classified by degree as minor, moderate, and major. A minor impact would not affect the public, only disturb a small area or have negligible effect on the receiving stream. A moderate impact would be any impact not fitting the criteria for minor or major. A major impact would be defined as having a significant impact to the public, affect a large area; have a major impact to the receiving stream, and would include mining without a permit.

Collection of off-site impact data is an integral part of permit monitoring and begins with the state inspector. PADEP inspection staff record off-site impacts as part of the permit inspection process.

Off-site impacts result in compliance orders, which can initiate the assessment of civil penalties. When a compliance order is written for a violation causing off-site impacts, the inspection report includes a civil penalty work sheet that is provided to the compliance officer for assessment of a civil penalty. The inspector's report, determining off-site impacts, is reviewed by the supervisor and verified for correctness. The compliance officer reviews the information provided in the inspection report and the district compliance officer or legal assistant determines the impact and severity of the impact, and enters the data in eFACTS.

During this evaluation year quarterly off-site reports were provided to OSM staff by Bureau of Mining and Reclamation (BMR) staff. The reports were reviewed and comments provided to PADEP on the completeness of data reporting and consistency in the data screens. All comments were considered and changes were made to data reporting and recording to make the information consistent and more complete.

Discussion of impacts

During the 2012 evaluation year PADEP inspectors conducted partial and complete inspections on 1,463 active, and inactive, surface, underground, refuse, and preparation plant permits and reported 136 off-site impacts. There were an additional 39 unreclaimed bond forfeited permits with minor off-site impacts from land related hydrology issues and 37 bond forfeited permits where the lands have been reclaimed, but contain moderate off-site untreated pollutional discharges. An additional 31 bond forfeited permits have ongoing water treatment facilities. These permits are not having off-site impacts and are not included in the calculations. This report focuses on the 136 off-site impacts from the active and inactive permits.

There were 88 unique permits included with the off-site impacts. Therefore, 94% of the active/inactive permits were free of off-site impacts. The 2011 annual report showed 92% of the permits were free of off-site impacts, and in 2010, 94% of permits were shown as free of off-site impacts. Pennsylvania continues to maintain a high level of permits free of off-site impacts. PFD's goal is to have 94% of permits free of off-site impacts

The 136 off-site impacts collected this year are identified by PADEP as 10 major, 29 moderate and 97 minor (**See Figure 1.**) They are categorized as follows: 89 hydrology (66% of total), 22 other (16% of total), 15 land stability (11% of total) 6 encroachment (4% of total), 4 blasting (3%

of total.)

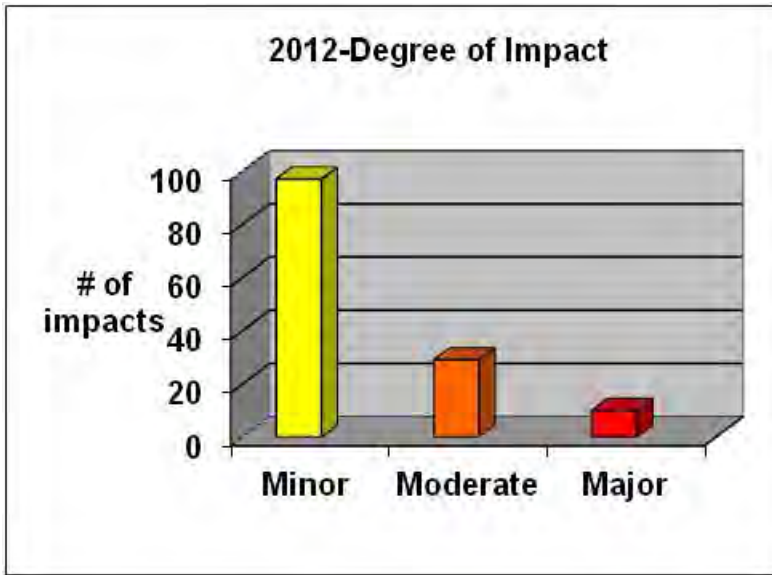


Figure1. Off-site impacts by category

Discussion of impacts

The majority of the impacts continue to be categorized as hydrology, resulting from the discharge of improperly treated or untreated water that exceeds the numerical effluent limitation specified in the permit and in Pennsylvania Title 25 Chapter 87.102. There were 89 hydrology impacts (66% of the total). Of the 89 hydrology impacts, 9 were major, 19 were moderate, and 61 were minor. The nine major hydrology impacts were for the following violations:

- Three for failure to comply with the terms and conditions of the permit
- Two for discharging water that does not meet water quality limits
- Two for failure to properly design, construct or maintain erosion and sedimentation controls
- One for failure to properly design or maintain treatment facilities
- One for failure to design, construct, or maintain haul roads

The majority of the minor and moderate hydrological off-site impacts were for the following violations: failure to properly design, construct or maintain erosion & sedimentation controls, discharging water that does not meet quality limits, failure to comply with the terms and conditions of the permit; and failure to conduct mining activities to protect fish and wildlife.



Figure 2. Hydrologic off-site impact in the Bituminous area of Pennsylvania

The second largest category of off-site impacts fell into the “other category” which had 22 impacts (16% of the total). There were no major but four moderate impacts cited for the following violations:

- Two for discharging water that does not meet quality limits
- One for conducting mining activities without a permit
- One for failure to properly design, construct or maintain sedimentation ponds
- One for failure to comply with the terms and conditions of the permit

Minor violations were listed for the following citations: mining without a permit; failure to properly design, construct or maintain erosion & sedimentation controls; failure to comply with the terms and conditions of the permit; discharging water that does not meet quality limits;; failure to revegetate disturbed areas in accordance with approved plans; and general safety violations including pit water accumulation.

There were 15 land stability impacts (11% of the total) with five moderate impacts cited for the following violations:

- Two for failure to apply mulch to re-graded and top soiled areas
- Two for failure to plant disturbed areas during the first planting season after backfilling
- One for failure to properly design and construct erosion and sedimentation controls

The 10 minor violations under the category of land stability were for the same violations as listed above under the moderate type of impacts.

Encroachment had 6 violations (4%), 4 minor and one major and moderate violation. The minor violations were for:

- Unlawful conduct; failure to comply
- Conducting mining activities in a barrier area without first obtaining a variance
- Failure to post signs and markers.

The major and moderate violations were both for conducting mining activities in a barrier area without first obtaining a variance.

The smallest category was blasting with 4 minor violations (3%):

- Failure to employ adequate air pollution controls
- Failure to conduct blasting to prevent fly rock
- Failure to control access to areas subject to fly rock
- Failure to conduct blasting to prevent adverse impacting on underground mines

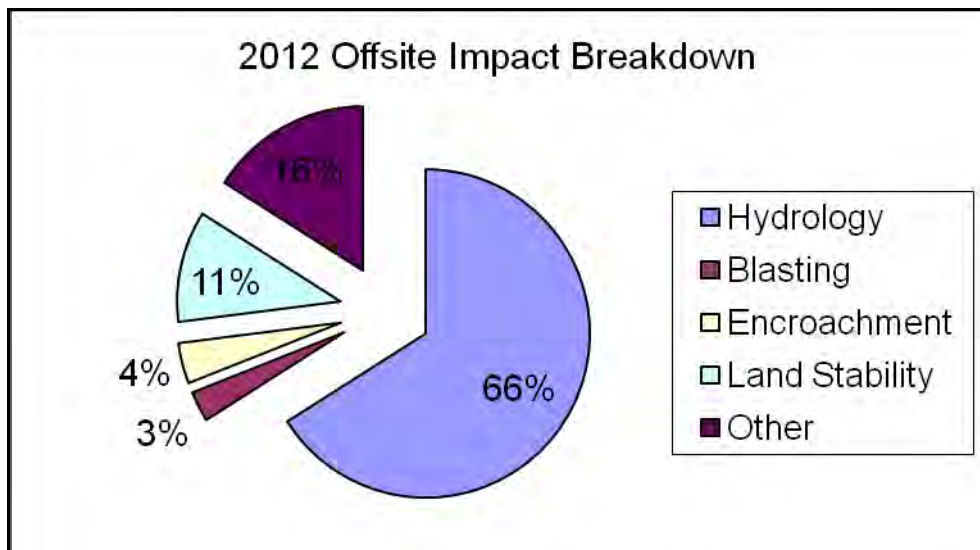


Figure 3: Total number of off-Site Impacts by Degrees of Severity

OSM inspectors conducted 144 “oversight complete” inspections in the bituminous and anthracite areas. As an independent check of the data collected by PADEP OSM’s oversight complete inspections note any observed off-site impacts. OSM observed 20 off-site impacts

which are broken down as follows: 15 hydrology, 4 encroachment, and 1 land stability. Thus, 86% of the permits inspected by OSM over the course of the evaluation period were free of off-site impacts. The percentage of permits which OSM reported free of off-site impacts reported for the 2011 evaluation year was 85%. This 7% difference between PFD and PADEP in reporting off-site impacts will be a subject for discussion in EY 2013.

An analysis of the PADEP data submitted for the 2012 annual report determined that violations of 25 PA Code §86.11, conducting mining activities without a permit, was not correctly reported as a major off-site impact. There were four notices of violation issued for mining without a permit and none were identified as a major off-site impact. REG 8 requires that mining without a permit be reported as a major off-site impact. OSM and PADEP staff discussed the inconsistencies in reporting these violations in the past, and there was agreement that mining without a permit, mining outside the permit boundary, and mining without a license would be classified as a violation with a major off-site impact. A past issue that was not resolved is reporting of off-site impacts if a violation of 25 PA Code §87.102 were cited. A violation of §87.102 is discharging water that does not meet effluent standards. In past evaluation years, OSM noted that PADEP inspectors may choose not to report an off-site impact if the non-compliant discharge did not affect the water quality of the receiving stream (already severely degraded). For the 2012 evaluation year, PADEP report no off-site impacts for nine of the citations issued under 25 PA Code §87.102.

In almost all cases the DMO staff completed the violation comment category in the data base, making it easier to evaluate the exact nature of the impact.

Conclusions:

The number of permits with no off-site impacts has remained consistently high for the last several evaluation years. In 2011 evaluation year, there were 201 off-site impacts recorded for 1,388 active and inactive permits for an 86% compliance rate assuming one off-site impact per inspectable unit. The 2012 evaluation year shows reports 136 off-site impacts for 1,463 active and inactive permits for a 91% compliance rate. Hydrology still remains the highest source of off-site impacts with failure to properly design, construct or maintain erosion & sedimentation controls and discharging water that does not meet quality limits being overall the largest violations.

OSM will continue to compare off-site impact results from its oversight complete inspections with PADEP results and continue to periodically review eFACTS reports to determine if additional guidance is needed in identifying off-site impacts.

B. Reclamation Success

OSM Directive REG-8, Oversight of State Regulatory Programs, requires a yearly evaluation of the success of reclamation as determined by the acres of bond release. In Pennsylvania, acres reclaimed to Stage I, II, and III standards is used instead of acres with bond release because this provides a more contemporary measure of the reclamation activity. PADEP accumulates acres meeting Stage I, II and III reclamation success through operator reporting on the Annual Bond Review and Coal Completion Reports. This information is entered into eFACTS and compiled

every year for Table 6.

For the current evaluation year, PADEP reports 2,579 Stage I acres; 3,328 Stage II acres; and 4,479 Stage III acres reclaimed, for a total of 10,386 acres. The stage I, II, and III acres reclaimed and total is reduced from EY 2011, when 13,138 total reclaimed acres were reported, and EY 2010, when total acreage reclaimed reported was 31,338 and EY 2009, with a total reclamation acreage of 16,137.

In Evaluation Year 2012, PFD inspection staff reviewed a sample of permits with reports of acres reclaimed during the evaluation year, using the most recently filed Annual Bond Review (ABR) or Coal Completion Report (CCR). The 2012 Reclamation Success Inspection Form was completed for 43 permits where reclaimed acreage was reported. An additional 65 permits were reviewed with a finding that no reclamation activities had been initiated, or there was no change in the reclamation status since the last ABR. Of the 108 permits reviewed, 77 were for bituminous permits and 31 were for anthracite permits.

Twenty-six of the permits reported acreage meeting Stage I requirements (mining completed and area backfilled and planted). Twenty-four of the permits reported acreage meeting Stage II reclamation standards (vegetation established, with 70% coverage). Two of the permits inspected reported Stage III reclamation (vegetation requirements met for 5 years). PFD permit selection process for oversight limits permits selected for inspection where Stage III has been achieved. A total of 427.9 acres of Stage I reclamation was reported by the operators, and OSM verified that 608 acres met Stage I requirements. A total of 180.1 acres met stage I requirements and had not been reported by the operators. A total of 538.7 acres of Stage II reclamation was reported by the operators, and OSM verified that 652.8 acres met Stage II requirements. Therefore, 57 acres had not been reported by the operators. A total of 51.7 acres of Stage III reclamation was reported by the operators, and OSM verified that amount. In addition, OSM found six permits where Stage I backfilling had been completed with no report in the ABR; two permits where reclamation was complete with no report in the ABR or CCR; one permit where the reclamation was complete, but only Stage I acreage had been reported.

The fact that OSM observed more acreage meeting Stage I, II, or III reclamation standards, than that reported in the latest ABR or CCR submitted by the operator, is not a great concern because of the timing of OSM's inspections. One would expect mining and reclamation activities to advance between the submittal of the ABR or CCR, and OSM's inspection, and that the acreages would catch up.

However, a concern that needs to be addressed in discussions with PADEP is that on six permit inspections by OSM, Stage I reclamation acreage was observed, and the ABR or CCR did not indicate any Stage I reclamation. Similarly, there were five permits with Stage II acreage observed and no Stage II acreage in the ABR or CCR. These acreages may be lost in the system as reclamation advances to later Stages.

There are several possible explanations for these discrepancies including that the acreage was previously reported, and no additional reclamation had met Stage I, II, or III standards, or that the operator was waiting for bond release to report the acreage (which would be an incorrect

procedure), that the acreage was not being entered timely into eFACTS, or other explanations. In EY 2013, PFD will investigate these observations with PADEP. PFD notes that PADEP is in the process of eliminating the ABR, in favor of a mid-term and renewal bond review. The operators will still be required to report acreage reclaimed, but it would be on longer term intervals. PFD will take this opportunity to evaluate the process used for collecting reclamation success data for Table 6.

C. Customer Service

OSM Directive REG-8, Oversight of State Regulatory Programs, requires a yearly evaluation of a component of PADEP's public participation and customer service provisions in the approved regulatory program. In EY 2012, PFD initiated a customer service study involving PADEP's implementation of Technical Guidance 563-2000-655 – Surface Water Protection – Underground Bituminous coal Mining Operations. This Technical Guidance was developed to help assure underground long wall mining operations are conducted in a manner which protects streams from the subsidence effects of underground long wall mining. This is an issue which has been brought to OSM's attention by individual citizens and environmental groups in south west Pennsylvania. PFD will complete the evaluation in EY 2013.

D. Bond Adequacy to Reclaim Forfeited Permits

During the 2010 evaluation year, OSM required its field offices to conduct a national oversight review of the states' procedures for estimating reclamation costs for establishing bonds on coal mining permits. This review required; an analysis of each states' process for calculating and updating bonds; that the OSM Bonding Handbook be utilized to act as a barometer for evaluation of total bond required under state program; and an assessment of recently reclaimed forfeiture sites to determine adequacy of reclamation in relation to forfeited funds available. A full report was prepared, and distributed in December 2010. It is available for review in the public evaluation file. The Mining Reclamation Advisory Board (MRAB) was briefed on the findings of the study in its April 2011 meeting. The report provides the details of those evaluation techniques and resultant findings of the Pennsylvania full cost bonding program. The following is a summary of the report.

Since 2001, OSM has reviewed the Pennsylvania Department of Environmental Protection (PADEP) full cost bonding program procedures, and PADEP efforts to develop and maintain Bond Rate Guidelines commensurate with reclamation cost associated with Abandoned Mine Reclamation contracts. OSM oversight inspection data of mine sites subsequent to full cost bonding conversion have consistently documented that PADEP inspection and permit review staff routinely update bonds at each mine site to keep pace with changing site conditions. This review found that PADEP is implementing full cost bonding in compliance with the Pennsylvania approved bonding program. Review of the reclaimed forfeiture sites provide mixed results in that land reclamation on the three reclaimed sites did not fully match the approved reclamation plan in the permit due, in part, to lack of funds available to achieve reclamation required in the permit.

The report identified bonding program issues which are contributing to insufficient funds being

available to complete the permit reclamation plan. The particular items identified which may be causing the final bond to be less than needed are; the bond calculations do not include a factor for spoil swell which needs to be redistributed at time of reclamation; the manner in which spoil volume is calculated does not address actual pit size, but rather is limited to the coal foot print; inclusion of a 15% bond increase rule prior to requiring additional bond; and waiver of annual bond reviews for certain permits. These and possibly other bond calculation items need to be fully assessed and if determined necessary, bond program adjustments need to be made to assure sufficient funds are available to complete permit reclamation requirements on a case by case basis.

Based on findings of the study, the following recommendations were made:

- PADEP should aggressively pursue water treatment bonds or trust agreements on operations that develop post mining pollutional discharges.
- PADEP should discontinue bond adjustment waivers when the upward adjustment is less than 15% of the total bond.
- PADEP should discontinue waiving the ABR when a permit has been inactive over the past year.
- PADEP should revise Part C Authorization to Mine every time the ABR changes the operational area or bond amount.
- PADEP should incorporate a “swell factor” in its calculations of volume of material to be moved to backfill the pit and final grade the permit.
- PADEP should use the surface area of the pit, in addition to, or in place of the footprint of the coal, in calculating pit volumes and review its policy of allowing coal and other product minerals to be deducted from volume calculations.
- PADEP should maximize use of financial guarantees for treatment of post mining pollutional discharges.

During the year, PFD met with PADEP to discuss the status of the bonding program. PFD was advised that PADEP is proposing changes in the bonding program which will address several of the recommendations, including elimination of the annual bond review in favor of mid-term and renewal bond reviews and adjustments, which in itself will address the 15% bond adjustment waiver and waiver of the ABR when the permit has been inactive. PADEP is proposing to include a multiplication factor in the bond calculation which will apply to the years between permit approval and mid-term or renewal. Bond Rate Guidelines will still be used to calculate the initial bond amount, and the amount required at mid-term or renewal. PADEP is also taking steps to address the “foot print of the coal” issue.

As a result of the 2010 study, it is now PFD’s ongoing objective to inspect each bond forfeited permit to document the reasons for forfeiture, the status of reclamation at forfeiture, and the amount and adequacy of bond to complete the reclamation plan. PFD will also inspect each forfeited permit where reclamation has been achieved through Department contract, or third party

or surety reclamation, or by decision that no additional reclamation is needed.

For EY 2012, PFD received a list from PADEP of outstanding bond forfeiture actions on primacy permits. The list was dated November 9, 2011, and contained 18 permits declared forfeited from 2007 through July 2011 which had not been reclaimed. All were forfeited with some element of land reclamation required. Permits forfeited solely for post-mining pollutional discharges were not included. PFD inspected 12 of the permits. Complete reports are in the evaluation file, and were previously forwarded to PADEP. Observations and findings are summarized below.

Of the 12 bond forfeited permits inspected by PFD, four have been reclaimed; two with Act 181 contracts and two with Departmental contracts. Pennsylvania Act 181 allows the affected landowners, licensed coal mine operators (other than the forfeited operator) or local conservation districts to reclaim a bond forfeited permit for the amount of a Department engineer's estimated cost to reclaim, or the reclamation estimate using the current bond rate guideline, whichever is less. The permit reclamation plan was completed on all four permits. Three permits had sufficient bond. One permit was reclaimed by the landowner, under an Act 181 contract. The landowner reclaimed the underground mine opening in accordance with the reclamation plan for the value of the bond, although the engineer's estimate for reclamation was higher. PFD did not note any environmental issues with the sites after reclamation, although additional material needs to be placed over one back filled opening to fill a small slump which developed due to settling.

Using Bond Rate Guidelines applicable at the time of inspection, OSM determined there is insufficient bond to achieve the permit reclamation plan, for seven of the eight un-reclaimed bond forfeited permits. Three forfeited permits are under surety reclamation Consent Orders and Agreements, with modified reclamation plans. One anthracite underground mine permit is insufficiently bonded for reclamation of its opening. Two sites need land reclamation, which exceeds the bond. Reclamation on another site may need to address erosion issues in a reclaimed area, and additional expenses to handle large rocks in the spoil material, the costs for which would exceed the bond amount.

Three forfeited permits have post mining pollutional discharges. They are conventionally bonded, and therefore not eligible as ABS legacy sites. There are no water treatment bonds for these discharges. Two permittees were under treatment orders prior to forfeiture. The discharge on one site appears to be minimal flow and not leaving the permit. However, OSM recommends continued monitoring on this discharge until the flow can be documented for all four seasons. The discharges on another site are being treated through a surety reclamation contract. The discharge on the third permit is causing off-site impacts to a stream. OSM recommends that PADEP assess the impact of this discharge and develop alternative funding sources to construct and maintain a treatment system.

The final forfeited permit inspected by PFD appears to have adequate bond to complete the reclamation plan.

E. AML Expenditure Progress

During the evaluation period, OSM initiated and maintained discussions with state and tribe program officials concerning the level of unexpended funding in open AML grants. OSM presented information at the National Association of Abandoned Mine Land Program meetings. OSM has been encouraging state and tribe AML grant recipients to carefully track their progress towards expending funds in a timely manner.

Pennsylvania acknowledges the importance of placing available funds into reclamation as soon as practicable. Pennsylvania has expressed concerns that the expenditure reports OSM submits to the DOI may not be detailed enough to accurately characterize the status of program funding.

OSM reports the amount of funds that has not been ‘drawn down’ by the States to reimburse expenditures. The State does not draw down funds until the service or product has been provided, the States has certified that the delivered item or service meets the contractual requirements and was acceptable, and, finally, after an invoice has been received. AML projects are complex and often large operations. It can be a considerable amount of time between when a State is legally committed to a monetary obligation and when the State draws down funds. Pennsylvania’s concern is that the Unobligated Funds Report does not capture the dollar value that the State is legally obligated to pay for items contracted for, and therefore may mislead some into thinking that the funds are not needed.

The State also needs to reserve funds to be used to address problems previously handled by OSM under the federal emergency program, and that Pennsylvania has a very robust AMD Set-Aside program that results in significant funding being transferred to the dedicated state account. The need for these set-aside funds also increases the amount of ‘unobligated’ funds reported.

OSM recognizes that the process of allocating reclamation funds to address health, safety, and environmental problems in Pennsylvania is complicated and must take into account that the state has two distinct mining regions (Anthracite and Bituminous). OSM continue to collect information on the status of grant funds while Pennsylvania is tracking their progress towards timely expenditure on high priority AML problems.

VII. OSM Assistance

A. Maintaining the Mine Drainage Inventory

The purpose of the Acid Mine Drainage Study is to evaluate pollutional discharges associated with active and bond forfeited primacy coal mining operations. The PADEP tracks the mine drainage information in the eFACTS database. The database has developed into a dynamic tool that identifies the discharges, inspection findings, and provides water quality and treatment information. OSM’s Mine Drainage Inventory (MDI) database is being used as a reconciling tool to assist and verify that the PADEP is identifying and tracking discharges in its eFACTS.

The integration of all mining permits identified as having AMD into one database eliminates the necessity for OSM and PADEP to maintain two separate versions of the

MDI. Having the MDI as part of the eFACTS database provides transparency of the MDI and an avenue for the public sector to access discharge information. It also facilitates the process for identifying permits to be reviewed by OSM in future studies. There are 279 permits with 445 individual discharges currently on the MDI.

The Acid Mine Drainage Inventory Study is the only OSM annual review study that focuses on sites with AMD discharges – including underground mine permits and bond forfeited permits. This study provides the opportunity for OSM to review the permit files and in most instances perform an inspection of the discharge sites, review the adequacy of treatment for the discharges, and ensure the site and discharge are monitored through the PADEP eFACTS. The report reflects the progress in treating as well as identifying the sites that require additional treatment. Each permit that is part of this study is discussed in the data presentation and discussion portions of this report.

Since 2003, the Acid Mine Drainage (AMD) Inventory Study has been used as an oversight tool to verify that discharges are part of the PADEP inventory and provide updated site, water quality and water treatment information. Permit selection is part of a multi-year systematic plan to continually update information to the Mine Drainage Inventory (MDI). The AMD Inventory study consists of the OSM conducting file reviews and inspecting AMD discharge sites listed on the MDI.

A total of six permits with pollutional discharges were selected for evaluation. OSM inspection staff conducted the file reviews, inspections, and assessed the treatment of the acid mine drainage. The resulting information provides an update for OSM and PADEP to use in the MDI and eFACTS database.

The six sites selected for this year’s review include five underground mining sites identified as having an Acid Mine Drainage (AMD) discharge and one Coal Refuse Disposal site identified as having an AMD discharge.

Five of the six permits have ongoing active treatment of the discharges with two of the permits being part of a partially funded trust. The remaining permit’s discharge is not being treated. The permit was forfeited in 2001 and the remaining bonds were collected in 2002. The last water sample in the permit file was taken on 3/6/2002.

OSM staff inspected the following permits and provided an analysis for each site:

Permit Number	Operator	Site Name	Facility Status
49871304	West Cameron Mining	Three L Mine	REC
54851323	Shadle Coal Co.	A&J Mine	BDFTD
54851332	RS&W Coal Co.	Woods Drift Mine	Active

56841321	Miller Springs Remediation	Bird Mine No 2/No 3	RECH
56851303	Roxcoal Inc.	Barbara 1 Deep Mine	Active
56910701	PBS Coals Inc.	Job 10	Active

The permits have various status codes and are categorized as “Active” – coal mining and reclamation are occurring; “Bond Forfeited (BDFTD)” – bonds were forfeited; “Reclaimed Chemical Treatment (RECH)” – chemical treatment remains for pollutional discharge on a reclaimed mine site; “Under Reclamation (REC)” – a site is currently under the reclamation process.

Each permit is discussed below.

- Permit 49871304, West Cameron Mining, Three L Mine, is an underground mining site that is currently being reclaimed. The file review reflects the required monthly water sampling is being conducted. Even though the small water flow being discharged has a higher pH than required in the NPDES permit, the receiving stream is drastically degraded by various abandoned mines upstream from the permit site. The additional alkalinity does not adversely affect the water quality of the receiving stream. Other points of the review discovered that the hydraulic seal failed and needs to be reinstalled and there is a concern over the time frame for follow up contemporaneous reclamation. Department personnel will meet with the permittee in the very near future to discuss the reinstallation of the hydraulic seal and establish a treatment trust to ensure perpetual treatment. The remaining bonds will be used to fund the trust.
- Permit 54851323, Shadle Coal Co., A&J Mine, is a bond forfeited underground mining site where the discharge is not being treated. The bonds were forfeited in 2001 and collected in 2002. There is a small treatment basin on site that appears to do little or nothing in the treatment of the discharge. The discharge enters an adjacent water course that emanates from an abandoned mining related tunnel that is also degraded by past mining activities. In 2002, the inspector for the site recommended that the site to be removed from the inspectable units list. Removing the site from the inventory would contradict with PADEP’s policy of maintaining a database of all mining related discharges identified within the Commonwealth.
- Permit 54851332, RS & W Coal Co., Woods Drift Mine, is an active underground mining site with an operational treatment system with lime slurry used to treat the discharge. The permit is currently under renewal. It was discovered during the review that the required water samples were not being taken by the inspector. The permittee is submitting self-monitoring water quality information, but it was noted during the review that water being discharged has a higher pH than required in the NPDES permit. The additional alkalinity does not adversely affect the

water quality of the receiving stream because of other AMD discharges upstream from the permit site. Through discussions about the site, the district office committed itself to requiring the permittee to upgrade and recalculate bonding in accordance with conventional bonding guidelines as part of the permit renewal process and will ascertain if a treatment trust needs to be established to ensure the discharge will be adequately treated to meet effluent limits. The inspector will commence to gathering the required water samples and acquired a discharge sample the day after this review.

- Permit 56841321, Miller Springs Remediation Mgmt. Inc., Bird Mine No 2 and No 3, is a reclaimed underground mining site with a chemical treatment facility being used to treat the large discharge. Average flow of the discharge is 4,400 gpm and the treated water routinely meets the required effluent limits before being discharged into Stony Creek. The treatment facility consists of two boreholes with pumps, raw water collection pond, treatment building dispensing lime slurry and flocculent, aeration tank, aeration basin, and treatment ponds. The facility is manned by one or two people for 40 hours per week. There is currently \$20,020,500.00 of surety bond on the permit with estimated annual costs of \$539,101.00 and capital costs of \$400,000.00.
- Permit 56851303, Rox Coal Inc., Barbara #1 and #2 Mines, is an active underground mining site with a treatment facility that is funded through the partially funded PBS Coals, Inc. Global Trust. The average flow of the discharge is 1,100 gpm and meets effluent limits before being discharged into the receiving stream. Water samples are being routinely collected by the State inspector. The treatment facility consists of a borehole with pump, raw water collection pond, treatment building dispensing lime slurry and flocculent, aeration, and three additional iron/manganese settling basins. The facility operator directs half the raw water through the hydrated lime treatment and half the raw water through the aeration system. The lime addition is required to get the manganese to precipitate, and the aeration allows ferrous iron to oxidize to ferric iron. The cost of hydrated lime treatment on an annual basis is approximately \$59,000.00.
- Permit 56910701, PBS Coals Inc., Job 10, is an active refuse disposal site with a treatment facility that is funded through the partially funded PBS Coals, Inc. Global Trust. The average flow of the raw water is 10 gpm and the discharge is meeting the required effluent limits before entering the receiving stream. The treatment facility consists of seven leachate drains, sump, piping, lime silo that dispenses hydrated lime, aeration mixer, and four settling ponds. The annual cost for the treatment system is estimated at \$49,001.00.

Having the MDI in eFACTS provides transparency of the MDI and an avenue for the public to

access discharge information. The inventory is a dynamic tool, which is being updated, as new information is made available. Throughout the evaluation year PFD inspectors, as well as State inspectors, inspect permitted sites with pollutional discharges, and collect water samples. The water quality and quantity information is then updated in the inventory. Having the MDI in eFACTS eliminates the necessity for OSM and PADEP to maintain two versions of the MDI.

B. Watershed Cooperative Agreement Program

In 1999, OSM established the Watershed Cooperative Agreement Program (WCAP). The program provides supplemental assistance to non-profit watershed groups and other organizations to construct AMD treatment facilities to help restore local streams to biological health. To date, 90 WCAP grants have been awarded to Pennsylvania non-profit watershed groups for a total of about 7.8 million dollars. Total costs for these projects including all partner cash and in-kind donations of labor and services are about 35.4 million dollars. In total, OSM's contribution to the projects averages about 22 percent. Eighty-three of the projects have been awarded to construct passive treatment systems with most projects involving more than one treatment system. Three projects were for land reclamation to reduce or eliminate a source of mine drainage. Four projects were for active treatment of mine water. Seventy-six projects have been completed.

During the evaluative year, there were four new project grants awarded for a total of \$198,064. These awards were made to Toby Creek Watershed Association; Casselman River Watershed Association; Bear Creek Watershed Association; and Southern Alleghenies Conservancy. At the end of the evaluation year, several new applications were under review, or in the award process.

PADEP is frequently involved as a primary partner in these direct assistance grants, either providing funding and or technical assistance, and OSM Harrisburg Office staff coordinates with PADEP to help assure the successful completion of the projects.

Funds provided by OSM complete the remediation budget, and OSM receives a large number of financial assistance requests from Growing Greener program applicants. Other financial partners involved in WCAP projects include the NRCS, Environmental Protection Agency, the Eastern and Western Pennsylvania Coalitions for Abandoned Mine Reclamation, the U.S. Army Corps of Engineers (COE), and numerous foundations, conservancies, watershed groups, industries and coal mining companies, and individuals. Because of the partnership nature of the WCAP, the OSM Harrisburg Office is routinely involved in meetings and site visits with watershed groups, PADEP and other project partners, helping to coordinate the technical and programmatic aspects, and to resolve issues.

The OSM has dedicated a significant amount of staff resources in administering this program, and provides significant technical help to watershed groups seeking the best available technology to remediate their mine drainage problems.

VIII. General Oversight Topic Reviews

Each year the OSM, in consultation with PADEP, develops an oversight work plan, as required by the OSM Directive REG-8, Oversight of State Regulatory Programs. This plan includes

various aspects of Pennsylvania's approved coal regulatory and Title IV AML programs that OSM will evaluate for effectiveness, innovation, and compliance. OSM's oversight is not process driven. It focuses on the on-the-ground/end result success of Pennsylvania's program in achieving the purposes of SMCRA. A review team is established for each topic and a team leader is designated. PADEP is invited to appoint team members. At the conclusion of the evaluation, a report is written and provided to PADEP for comment prior to finalization. Copies of the reports are maintained in the public evaluation file located in the OSM Harrisburg Office. Starting with EY 2012, evaluation reports will also be posted on OSM's web site.

Several evaluation studies have been discussed earlier in this report and are not repeated here. A summary and results of each remaining study follows.

A. Oversight Inspections

The oversight inspection review and analysis is conducted to fulfill responsibilities as specified in OSM's Oversight policy REG-8, regarding review of PADEP's permitting and inspection program for surface coal mining operations.

This activity includes reviews of applicable mine permit files and on-site inspections focused on identification of off site impacts resulting from various mining activities. Inspections are documented using OSM's Mine Site Evaluation and addendum forms. Inspection data is entered into a national data base. Specifically, this activity provides monitoring capability for the entire spectrum of State program operations and gives an up-to-date perspective of the on-the-ground successes of Pennsylvania's mining program. In addition, data was collected in support of other studies identified in the 2012 Work Plan.

OSM conducted a total of 449 permit oversight inspections during the evaluation year. Of those inspections, 144 were oversight complete inspections (OC) of mine sites, with 112 conducted in the bituminous region and 32 conducted in the anthracite region. These inspections covered 9% of the total number of active and inactive inspectable units (see Table 2) in Pennsylvania. As a point of comparison, in EY 2011, 16% of the inspectable units were inspected by OSM inspectors. This reduction reflects the loss of one authorized inspector during the year, and the addition of one inspector who is not yet authorized to conduct inspections. The other 305 inspections conducted in EY 2012 were in support of other oversight work plan evaluations, file document reviews, bond forfeiture actions, responses to citizen complaints, Ten-Day Notices (TDN), and state enforcement action follow-ups. There were 104 state enforcement action follow up inspections conducted. These inspections are conducted to track compliance with notices of violation issued by PADEP inspectors as a result of OSM's oversight inspections, or TDNs.

By comparison, in Evaluation Year EY 2011, OSM inspectors conducted a total of 442 inspections, with 216 oversight complete inspections.

The EY 2012 inspection totals represent virtually no change in the total number of inspections conducted by OSM. At the end of the Evaluation year there were three authorized OSM inspectors assigned to Pennsylvania and two other inspectors who have not received the training necessary to receive authorization. During the year one authorized inspector transferred to

another division in OSM.

OSM conducts both joint inspections with PADEP, and independent inspections. The Field Offices conduct at least 10% of oversight inspections as independent inspections. PADEP is provided with a two day notice, to arrange for participation, but is not advised of the permit to be inspected.

For scheduled joint OSM/PADEP inspections, the OSM inspector contacts the PADEP inspector assigned to the permit several days, to a week ahead of the inspection and offers to conduct the inspection jointly. Violations noted during joint inspections, which are not corrected during the inspection, are deferred to PADEP for action and OSM follows up to assure compliance.

Disagreements are addressed through the Ten-Day Notice (TDN) process. Of the 144 oversight complete inspections, 18, or 12.5% were independent. Violations noted during independent inspections, in which PADEP participates, are deferred to PADEP for action if not corrected by the operator while the inspection is underway. If PADEP is not participating, a TDN is issued.

The 144 oversight complete inspections revealed 71 permits had at least one violation which represents 49% of the sites inspected. In EY 2011, 49% of the permits inspected also had at least one violation. A total of 155 violations were identified during OC inspections this year and referred to PADEP for resolution. This includes 12 violations deferred during the independent inspections.

Thus the violation rate per permit inspected by OSM remained essentially unchanged in EY 2012 at 1.1, down slightly from EY 2011 (1.2). In the Bituminous Region, 68 or 61% of the permits inspected (112 permits) were violation free, and in the Anthracite Region, five, or 15.5% of the permits inspected (32) were violation free.

This year, 20 of the 155 violations (7.7%) observed were considered to have resulted in off-site impacts, using a one to one ratio of off-site impact for each permits. This ratio continues to decrease from EY 2010, when 18% of the permits inspected had off-site impacts and EY 2011 when 12% had off-site impacts. The off-site impacts included 15 violations related to “hydrologic impacts;” 4 violations related to “encroachment;” and 1 violation related to “land stability.

During the 2009 evaluation year OSM initiated a study to acquire data regarding violations noted during OSM oversight inspections compared to complete and/or partial inspections conducted by PADEP on the same permits without OSM present, during the six month period prior to the OSM inspection. This study was extended in 2012 and the results are summarized in the following table.

PADEP District Mining Office	OSM inspections per DMO	OSM violations noted during joint inspection with DEP	DEP violations noted during inspection*without OSM presence
Cambria	41	39	8
Greensburg	30	33	13
Moshannon	25	21	8
Knox	16	7	3
Pottsville	32	55	9
Total	144	155	41

*Note: PADEP violation data included the total for inspections conducted in the past 6 months prior to OSM inspection.

In the chart above, column two shows the total number of permits inspected by OSM and the distribution by District Office. Column three shows the total number and distribution of violations observed on the 144 permits inspected by OSM. Column four shows the total number of violations cited by PADEP on the same permits, in the previous six months.

The data illustrates the large difference in violation citation rates between OSM and PADEP. Further evidence of this difference is found in the total ratio of violations cited by PADEP per inspection. With 12,600 partial and complete inspections conducted in EY 2012 and 658 violations issued, PADEP inspectors cited .05 violations per inspection. OSM observed and deferred violations at a rate of 1.1 violations per inspection.

In review of this data, it is reconfirmed that when OSM participates in an inspection, significantly more violations are cited by DEP compared to when DEP completes an inspection independently.

A total of 11 TDN's were issued to PADEP during the 2012 evaluation period. Eight of the TDN's are the result of Citizen's Complaints. Three of the TDN's were issued based on oversight inspections.

The 3 TDN's resulting from a Federal oversight inspection contained 7 violations. PADEP's responses and OSM's determinations are summarized below.

- . 2 Good Cause that the violation did not exist.
- . 1 Appropriate Action to cause the violation to be corrected.

- . 4 Determination deferred pending permitting decision by PADEP.

The eight Citizen Complaint TDNs contained 25 alleged violations. PADEP's responses and OSM's determinations are summarized below.

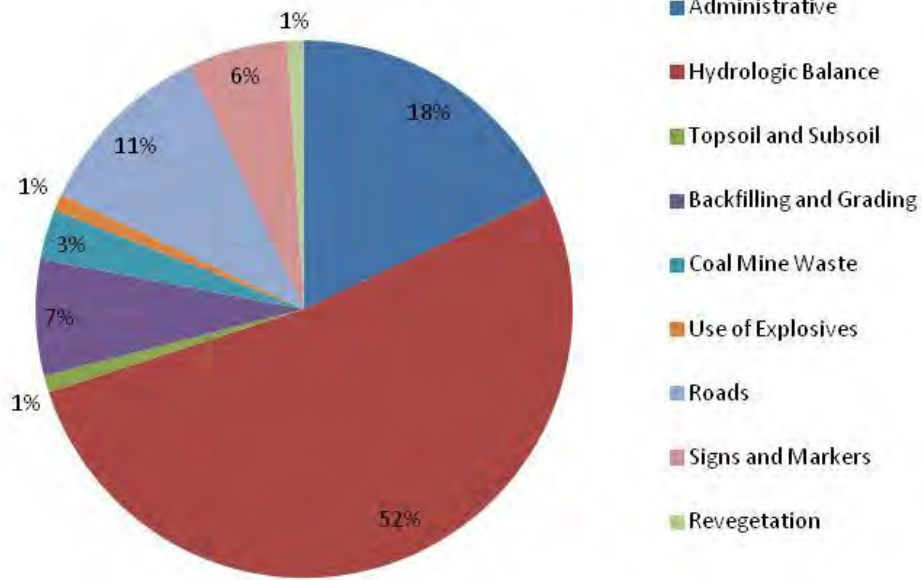
- . 13 Good cause that the violation did not exist.
- . 6 Appropriate action to cause the violation to be corrected.
- . 4 PADEP's response was under review.
- . 2 Inappropriate responses, resulting in a request for informal review. See discussion below.

PADEP's response on two violations was determined to be "inappropriate" by PFD. PADEP requested an informal review from the Regional Director on both cases. One PFD determination was overturned by the Regional Director after reviewing supplemental information provided by PADEP with the informal review request. After reviewing the information, PFD concurred that PADEP had demonstrated good cause that the violation did not exist (see Reading Anthracite TDN in Appendix B). The other informal review decision upheld PFD's determination and a Federal inspection is underway (see Champion Processing Beech Hollow TDN in Appendix B). The citizen complainant requested an informal review of PFD's good cause determination on the Fayette County Redevelopment Authority GFCC TDN, which contained 8 alleged violations. At the end of the evaluation year, that informal review was underway.

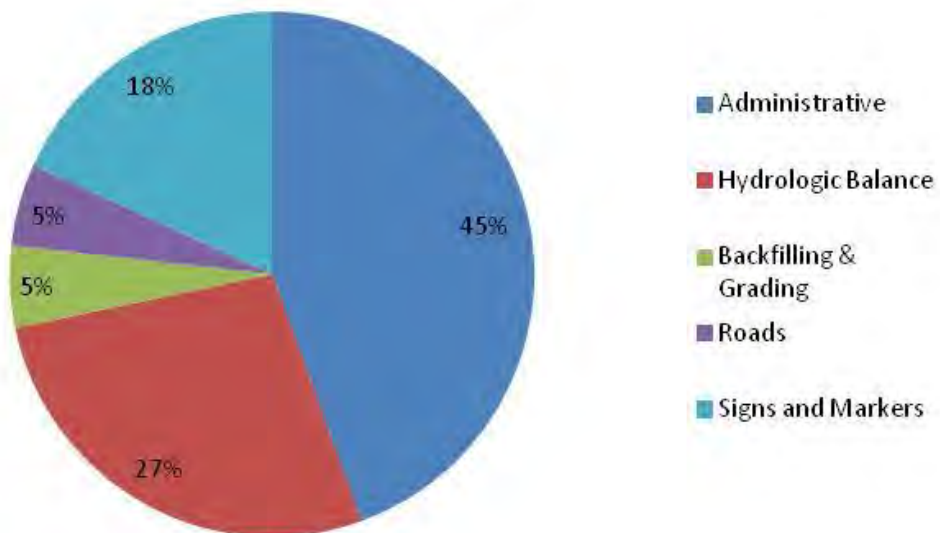
A brief description and current status of each TDN is included in Appendix B.

The following two graphs illustrate the distribution of violations noted during OSM's Oversight Complete inspections.

Violations identified on OC inspections - Bituminous Region



Violations Identified on OC Inspections - Anthracite Region



Analysis of the data shown above supports two major conclusions. Hydrologic impacts, within the Bituminous and Anthracite regions, continue to be prevalent environmental concerns. The percentage of the total violations that are hydrology related has decreased in the Bituminous Region from 58% in EY2010, to 54% in EY2011, to 52% in 2012, and has returned to 27% in the Anthracite Region from 34% in EY2011. Administrative violations remain essentially the same at 18% in the Bituminous Region, and returned to 45% from 35.5% in the Anthracite Region. The specific types of administrative violations in the anthracite region include: violations for mining without a permit; mining outside a bonded area; and other violations.

A continuing trend is noted in the decreasing number of permit inspections. The number of inspections decreased from 18,181 in EY 2007 to 15,513 in EY 2010 and to 13,207 in EY 2011. In EY 2012 the total number of inspections was 12,600. In EY 2010, the number of inspectable units (active, inactive and abandoned permits) was 1,684. However, in EY 2011 the number of inspectable units increased to 1,731. In EY 2012, the number of inspectable units was again at 1,649. PADEP is required to inspect active permits every month (12 per year), in a combination of partial and complete, with a complete inspection at least every quarter. Abandoned permits are subject to the same inspection frequency unless an alternative inspection frequency is established in accordance with 30 CFR § 840.11. PADEP has not officially established alternative inspection frequencies for any abandoned permits. Therefore, the total number of complete inspections which should have been conducted for 1,649 active, inactive and abandoned permits was 6,596 for the year. The total number of complete inspections reported in Table 10 was 4,972, or 75% of the required number.

PADEP is required to conduct partial inspections of active permits at least eight times per year (no less frequent than once every month in combination with complete inspections). Thus, 7,392 partial inspections should have been conducted on the 924 active permits reported. PADEP reports in Table 10 that 6,138 partial inspections were conducted on active permits, or 83% of the required number. Partial inspection frequency on inactive and abandoned permits is at PADEP's discretion. In EY 2012, PADEP reported conducting 1,490 partial inspections on 725 inactive and abandoned sites for an average of 2 inspections per site per year. PADEP reports that budgetary restrictions and the resulting inability to fill vacancies resulted in inspection frequency prioritization and stratification. A comparison of Table 8 (State Staffing) from between EY 2011 and EY 2012 shows no significant changes in the total number of positions or the distribution between inspection, permitting and administrative activities.

The table below illustrates PADEP's deficiency in meeting the mandated inspection frequency. It also demonstrates that PADEP is dedicating its staff resources to conducting active, complete inspections. Visits to abandoned sites include monitoring water treatment facilities and collecting samples.

PADEP Inspection Analysis

<i>Permits</i>	<i>Inspections</i>								
		Complete	Min.req.	% comp.	Insp. Staff		Partial	Min.req	% comp.
2012	2012								
924	Active	3,254	3,696	88%			6,138	7,392	83%
539	Inactive	1,315	2,156	61%			1,225	discretion	2.3/year
186	Abandoned	403	744	54%			265	discretion	1.4/year
1,649	Total	4,972	6,596	75%	49.8FTE		7,628	unknown	
2011	2011								
930	Active	3,377	3,720	91%			6,610	7,440	89%
458	Inactive	815	1832	66%			523	discretion	1.1/year
343	Abandoned	1037	1372	75%			845	discretion	2.5/year
1,731	Total	5,229	6,924	76%	78.5		7,978	unknown	
2010	2010								
1,279	Active	4,423	5,116	86%			8,253	10,232	81%
344	Inactive	1,032	1,376	75%			1,606	discretion	5/year
61	Aband.	105	244	43%			94	discretion	1.5/year
1,684	Total	5,560	6,736	81%	78.50		9,953	unknown	

Minimum inspection frequency is one complete per quarter for all active and inactive permits, and eight partial per year for active permits. That totals 12 per year for active permits. Partial inspections for inactive permits are discretionary. Abandoned permits have the same required frequency.

PADEP reports it will be seeking grant assistance in the Fiscal Year 2013 grant to conduct partial aerial inspections. This should help improve compliance with the required inspection frequency. PADEP also notes that at the end of the evaluation period it had received authorization to fill five inspector vacancies. This should also help improve compliance with the required inspection frequency. PFD will complete a detailed study of PADEP's compliance with the required inspection frequency in EY 2013.

OSM notes the following trends in yearly violation citations, which may track with the declining number of inspections. In EY 2008, PADEP reported that 744 violations were issued. In 2009 PADEP reported 612 violations. In 2010, PADEP reported that 313 violations were issued, a 42% reduction from 2007/2010. However, in EY 2011, cited violations increased to 582, even with declining number of inspections. Similarly, in EY 2012, PADEP cited 658 violations for 12,600 inspections. This may indicate renewed attention to the enforcement program. PFD will

continue to monitor trends in the number of inspections versus violation citation. OSM also notes that the rate of violations cited per inspection has varied from .04% in 2009 to .02% in 2010, .04 in 2011 and .05 in 2012. OSM found an average of 1.1 violations per inspection in EY 2012. OSM will continue to investigate this issue during the 2013 Evaluation Year.

B. Use of Conventional Bonds and Treatment Trust Funds for Long Term Treatment

PADEP continues to negotiate and implement Trust Funds and Conventional Bonds for the perpetual treatment of all Pennsylvania coal mining permits with post mining discharges. PADEP uses AMDTreat, and/or actual water treatment cost data the coal company or a third party provides, as instruments to aid in the establishment of the bond or treatment trust funds amount. Other factors such as the trust's life span, market rate, and administration costs are also taken into consideration for establishing trust fund accounts. PADEP tracks all treatment trust and bonding information in the Department's eFACTS (Environment, Facility, Application, Compliance Tracking System) database. eFACTS is a department-wide database that provides a holistic view of the clients and sites that DEP regulates.

There are specific features in the eFACTS database regarding discharge tracking and providing information for officials and the public. Descriptions used in the eFACTS database are used to track trusts in a more efficient manner. The partially funded trusts are divided into two categories – “Partially Funded Current Payment Schedule” and “Partially Funded No Additional Payment.” Fully funded trusts also have two categories – “Fully Funded Adequately Funded” and “Fully Funded Inadequately Funded.” Conventionally bonded permits with discharge treatment systems are no longer associated with a trust name but are titled “Linked to Bond.” This process to track conventionally bonded treatment systems eliminates confusion and disassociates conventionally bonded discharges from discharges with financial obligations covered by trust agreements. The eFACTS database contains pre-primacy and non-coal permits along with primacy coal mining permits. With the treatment trust database in the eFACTS format, it is now possible to generate specific criteria reports. For example, OSM oversees primacy coal mining permits. It is now possible to generate a report that excludes non-coal and pre-primacy permits. For this evaluation year report, the pre-primacy and non-coal information is omitted.

Reports can be generated in the several format styles – summary, detailed, and executive. The summary report is detailed by the District Office, Trust Agreement Status and Financial Status. Agreement Status titles are: Linked to Bond, Not Started, Data Collection, Initial Calculations Completed, Negotiations Ongoing, Agreement Reached, Trust Finalized, and Trust in Default. Financial Status titles are: Not Started, Bond Requested, Partially Funded Current Payment Schedule, Partially Funded No Additional Payment, Fully Funded Adequately Funded, and Fully Funded Inadequately Funded. Offices identified in the current report are Cambria, Greensburg, Knox, Moshannon, and Pottsville. As of June, 2012, the eFACTS lists 48 partially funded and fully funded primacy treatment trust agreements, encompassing 105 permits and addressing 182 discharges. There are six trusts that fall in the Fully Funded Inadequately Funded category. There are 47 permits with 62 discharges that are conventionally bonded and do not require a trust.

For this evaluation year, the following table identifies the district offices, the number of trusts each office is associated with, the disposition of the trust – Partially funded, fully funded, or fully

funded inadequately funded, and the number of permits and discharges are associated with trusts. Also listed are the number of permits and discharges that are conventionally bonded.

	Partially Funded	Fully Funded	Fully Funded Inadequately Funded	No. of Permits assoc. w/trusts	No. of Discharges assoc. w/trusts	Permits w/Bonds	Discharges assoc. w/bonds
Pottsville							
Linked to Bond						1	1
	1			1	1		
		1		2	1		
Moshannon							
Linked to Bond						5	8
	2			3	3		
		7		24	34		
			1	1	5		
Greensburg							
Linked to Bond						15	17
	5			8	11		
		4		4	7		
			1	5	8		
Cambria							
Linked to Bond						17	19
	9			29	68		
		9		11	21		
			3	5	7		
Knox							
Linked to Bond						9	17
	1			2	1		
		3		4	8		
			1	6	7		

Totals:	18	24	6	105	182	47	62

PADEP continues to improve its discharge tracking and treatment process. Through the cooperation of the district offices and the dedication of the PADEP staff a fluid tracking system is in place. The eFACTS tracking database provides an easier avenue for officials and the public to keep abreast of the discharge tracking and treatment trust information in Pennsylvania.

C. Al Hamilton Treatment Trust

On September 23, 2003, Al Hamilton Contracting Company; Manor Mining and Contracting Corporation; Travelers Indemnity Company; ACE-INA; and American Insurance Company entered into a Consent Order and Agreement with the Department of Environmental Protection which identifies 15 post mining pollutional discharges on numerous permits, Al Hamilton’s treatment responsibilities and the legal history of each permit discharge. The CO&A authorizes the forfeiture and transfer of bonds to partially fund a treatment trust established to ensure long term treatment of the discharges as referenced in the CO&A.

In 2012, PFD completed a review of the Al Hamilton Treatment Trust Fund, including individual site performance evaluations. A complete copy of the report is available from OSM, and is maintained in the public evaluation file in the Harrisburg Office of OSM. Primary findings are summarized below.

We found that Moshannon District Mining Office has a system to effectively track the financial performance of the Fund, and site expenditures from the fund. There is an effective Operation and Maintenance Contract between the Trustee (The Clean Streams Foundation), and Gongaware Environmental Services Inc. to operate and maintain the active, chemical addition sites, with clearly defined responsibilities and treatment effluent requirements. Moshannon District Office staff regularly inspect the active and passive treatment sites, and collect water samples to help determine performance and any treatment issues. Water sample results are maintained and can be summarized for performance evaluation over the years. Moshannon Office issued contracts to rebuild five Al Hamilton treatment systems, mostly replacing active treatment facilities with passive treatment facilities.

The Al Hamilton Treatment Trust is experiencing severe financial stress. Manor Mine coal reserves constitute almost one half of the initial value for a fully funded trust. The Clean Streams Foundation, which owns the reserves, has been unable to lease or sell the reserves for a reasonable return to the Trust. Without the value of these coal reserves, the Treatment Trust is currently only about 26% of its beginning value considering the estimated value of the coal reserves, and the cash contributed through the forfeiture process. Cash reserves are currently only 34% of their beginning value. This financial stress has restricted selection and funding of treatment system construction and rehabilitation projects, thus allowing continued off-site impacts, and pollution of waters of the Commonwealth at several of the former Al Hamilton mine sites.

It has been almost nine years since PADEP took over responsibility for the Al Hamilton

discharges through its agreement with The Clean Streams Foundation. Significant progress has been made in maintaining and constructing treatment facilities at many of the discharges. The Clean Streams Foundation, under oversight from Moshannon Office, has constructed passive treatment systems at five discharges which had been under active treatment through the Al Hamilton permits.

Active chemical treatment facilities installed by Al Hamilton at five sites, are being operated and maintained through the trust under a contract with Gongaware Environmental Services.

A significant upgrade was recently completed at the Manor Mine treatment facility leading to more effective treatment.

However, there are three discharges currently not receiving treatment (Ralston GR 196, Little Beth, and Kauffman South SLB 10/11). Additional treatment systems need repair, rehabilitation and upgrading to assure maximum treatment efficiency.

There is no evidence the Al Hamilton Treatment Trust will become the robust source of in perpetuity funding envisioned when it was established in 2003. Therefore, OSM recommends that PADEP seek other funding sources from state environmental accounts to assure continued, effective treatment at all sites. OSM recommends that PADEP consider incorporating the forfeited Al Hamilton ABS primacy permits in the ABS legacy program. O&M of the primacy active treatment facilities (with the exception of Manor Mine #44, which is not an ABS forfeiture), and repair and rehabilitation of the primacy passive treatment sites could be funded with the Reclamation Fee O&M Trust Account. The Treatment Trust Fund could then be reserved for operation, routine maintenance, repair and rehabilitation activities at the pre-primacy sites and Manor Mine #44.

APPENDIX A

Acronyms used in this Report

ABS	Alternative Bonding System
AMD	Acid Mine Drainage (Relates to all mining related pollutional discharges)
AML	Abandoned Mine Lands
AMLIS	Abandoned Mine Land Inventory System
BAMR	Bureau of Abandoned Mine Reclamation
BCR	Bureau of Conservation and Restoration
BMP	Bureau of Mining Programs
CAC	Citizens Advisory Council
CBS	Conventional Bonding System
CO&A	Consent Order and Agreement
COE	U.S. Army Corps of Engineers
DMO	Bureau of District Mining Operations
eFACTS	Environment Facility Application Compliance Tracking System
EHB	Environmental Hearing Board
EPA	Environmental Protection Agency
EQB	Environmental Quality Board
GFCC	Government Financed Construction Contract
GPRA	Government Performance Results Act
HUP	Hydrologic Unit Plan
MRAB	Mining and Reclamation Advisory Board
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
OSM	Office of Surface Mining Reclamation and Enforcement
PADEP	Pennsylvania Department of Environmental Protection
PASMCRA	Pennsylvania Surface Mining Conservation and Reclamation Act
PFD	Pittsburgh Field Division
SMCRA	Surface Mining Control and Reclamation Act of 1977
TMDL	Total Maximum Daily Load
USFWS	United States Fish and Wildlife Service
WCAP	Watershed Cooperative Assistance Program

APPENDIX B

EY 2012 Ten-Day Notices

TDN X12-120-149-001 (TV2), Reading Anthracite Company. The TDN was issued based on a citizen complaint for two alleged blasting violations: damage to private property outside the permit area and exceeding the peak particle velocity and sound pressure levels. OSM determined that PADEP's response to the first violation failed to demonstrate that appropriate action was taken to cause a violation to be corrected or good cause that there is no violation and thus the response was arbitrary, capricious or an abuse of discretion. OSM determined that PADEP's response to the second violation demonstrated good cause that a violation does not exist. DEP requested an informal review for violation one and provided additional information. Review by the Appalachian Regional Director reversed PFD's finding that the response to violation one of the TDN was arbitrary, capricious or an abuse of discretion. PFD concurred with the finding based on a review of the additional information.

TDN X12-121-411-002 (TV8); Fayette County Redevelopment Authority, GFCC. The TDN was issued based on a citizen complaint which alleged that the redevelopment authority was mining coal without a permit because the activity did not meet the requirements and limitations for a Government Financed Construction Contract. PFD accepted PADEP's response as good cause demonstrating that a violation did not exist. The complainant requested an informal review.

TDN X11-121-019-006 (TV3); Champion Processing Beech Hollow. The TDN was issued based on a citizen complaint that fugitive dust was not being controlled on the permit, that ground water was being contaminated by the refuse disposal area, and that ground water monitoring was inadequate. PFD accepted PADEP's response as demonstrating good cause that a violation did not exist on two alleged violations, and determined that the response to the alleged ground water was inappropriate. PADEP requested an informal review of PFD determination. The Regional Director upheld PFD's determination and ordered a Federal inspection of possible ground water contamination, which was underway at the end of the evaluation year.

TDN X12-121-011-001 (TV4); Chestnut Ridge Trout Unlimited. The TDN was issued based on a citizen complaint which alleged untreated discharges from two permits into exceptional value and high quality streams. PADEP responded that it had taken appropriate action to cause the violations to be corrected, and the company was in bankruptcy. At the end of the evaluation year, PFD was evaluating the response.

TDN X11-121-019-008 (TV1); K&A Coal Company. The TDN was issued based on a citizen complaint which alleged a permit was issued without proper consideration of the potential impact on archaeological resources. PFD accepted PADEP's response as demonstrating good cause that no violation existed. PADEP complied with regulations regarding consideration of historic resources in permitting decisions.

TDN X11-121-411-002 (TV1); Big Mack Leasing Company. The TDN was issued based on an

OSM oversight inspection. The inspection cited a violation for improperly locating a down stream permit monitoring point, thus not properly measuring the impact of permit discharges. PFD accepted PADEP's response as demonstrating good cause that a violation did not exist.

TDN X11-121-019-009 (TV1); Svonavec. The TDN was issued based on a citizen complaint which alleged the operation failed to achieve contemporaneous reclamation. PFD accepted PADEP's response as demonstrating good cause that no violation existed.

TDN X12-121-411-001 (TV3); Black Dog Mining. The TDN was issued based on a citizen complaint that the permit was not being reclaimed contemporaneously, that off permit discharges were not be treated, and that erosion and control measures were not being maintained. PFD accepted PADEP's response that appropriate action had been taken to cause the violations to be corrected. PADEP issued enforcement actions, and forfeited the bond. Reclamation will proceed when appeal proceedings are completed.

TDN X11-121-019-010 (TV2); Rosebud Mining Company, Gnagey Strip. The TDN was issued based on an OSM oversight inspection. Violations were for failure to achieve contemporaneous reclamation, and improper permit type. PFD accepted PADEP's response as demonstrating appropriate action to cause the reclamation violation to be corrected, and good cause that there was no violation regarding the permitting action.

TDN X11-121-019-007 (TV3); Champion Processing Beech Hollow. This TDN was issued based on a citizen complaint of the discharge of treatment pond material off permit into a stream. PFD accepted PADEP's response as demonstrating appropriate action to cause the violations to be corrected.

TDN X12-121-411-003 (TV4); Dana Mining 4 West Mine. The TDN was issued based on an OSM oversight inspection, which found that certain water pumping and treatment operations of the underground mine were not properly permitted under PASMCRRA. PADEP responded that the operation was under review for a permit revision. PFD accepted this response, and will hold final determination until the permit revision is issued.

Other TDNs issued in prior years, with continuing action in EY 2012.

TDN X11-120-149-001(TV2); Porter Associates Inc. The TDN was issued on the basis of a citizen complaint for two alleged violations regarding coal ash placement exceeding approximate original contour, and exceeding the volume of ash approved in the permit for placement. PFD accepted PADEP's response finding good cause on one violation that the reclamation grades did not exceed approximate original contour, and finding appropriate action to cause the violation to be corrected in the amount of coal ash authorized for placement on the permit. The complainant requested an informal review, and a decision had not been issued at the end of the evaluation year.

TDN X10-121-011-008 (TV2); Hepburnia Coal Company. The TDN was issued based on an OSM oversight inspection for failure to comply with a compliance order. The CO was related to the operator's failure to implement, within the allowable abatement time, one of the two alternatives outlined in his permit to abate two discharges flowing off-site, which exceeded

effluent limitations. OSM granted an extension to PADEP to conduct a hydrologic investigation of the source of the off-permit discharges. On December 21, 2011, PADEP notified PFD that the investigation found Hepburnia responsible for the discharges, and that an order to treat had been issued. PADEP is developing a CO&A with the company to direct compliance. PFD found this to be appropriate action to cause the violations to be corrected.

TDN X10-121-411-004 (TV4); Rayne Energy. The TDN was issued based on an oversight inspection for the operator's failure to comply with §86.11(a), no person may operate a mine or allow a discharge from a mine into the water of the Commonwealth unless the person has obtained a permit from the Department, failure to obtain an NPDES permit for the outfall of the treatment system, failure to properly maintain the treatment system, and failure to comply with §89.102(12), which states that mining operations are not permitted within 100 feet of a perennial or intermittent stream. OSM determined the response was appropriate action to cause the 4 violations to be corrected. On February 15, 2012, PFD withdrew its determination and found PADEP's actions regarding the slow pace of permitting to be inappropriate. Enforcement action has been taken against Rayne Energy to cause it to submit PASMCR and NPDES permit applications to PADEP and take steps to cause the discharges into this high quality discharge to cease. OSM's actions have progressed to a FTACO.

TDN X10-121-019-008 (TV3); Champion Processing, Beech Hollow Refuse Disposal. The TDN was issued based on a Citizens Complaint. The following violations were alleged by the Environmental Integrity Project: failure to maintain treatment facilities on site in a manner that ensures the all discharges from disturbed areas are treated in a manner to ensure compliance with the water quality standards, effluent limitations and best management practices ; Operator has allowed a discharge of water from an area disturbed by coal refuse disposal activities that exceeded the effluent limitations relative to manganese, aluminum and acidity; and Operator failed to plan and conduct coal refuse disposal activities in a manner to minimize disturbances to the prevailing hydrologic balance of the permit, adjacent area and areas outside of the permit areas. DEP responded to this TDN and OSM found DEP's response demonstrated good cause why the alleged violations were not corrected. Informal Review was requested by the Citizens group. The Appalachian Regional Director found in favor of the citizen group and ordered PFD to conduct a Federal inspection. PFD is currently conducting a hydrologic investigation of possible contamination of water supplies adjacent to the permit, pollution of surface waters off permit, and possible ground water contamination emanating from the refuse disposal area. This investigation is continuing at the end of the evaluation year.

TDN X09-120-140-001 (TV2); Westwood Energy Properties. This TDN was issued in September 2009, based on a citizen complaint that coal ash disposal at the generating facility was contaminating the ground water, and public water supplies of the borough of Tremont. The TDN was as a result of a remand from IBLA based on a ruling in an earlier TDN in which PADEP found, and OSM agreed that there was no pollution of public water supplies caused by coal ash disposal at Westwood. The follow up TDN resulted in a joint hydrologic investigation by PADEP and OSM, the results of which were issued in April 2012. The investigation did not find any connection between coal ash disposal and ground water/water supply contamination.

TDN X07-120-149-002 (TV1); Reading Anthracite, Ellengowan. This TDN was issued in

response to a citizen complaint that coal ash disposal operations on a surface mine permit were causing ground water contamination. PFD accepted PADEP response that there was no evidence of such contamination. The citizen requested an informal review of the determination, and on May 16, 2012, the Appalachian Regional Director upheld PFD's determination.

APPENDIX C

PADEP comments on Draft Report

Regarding Section VI, E. AML Expenditure Progress, on page 41, PADEP provided the following comment.

The section accurately discusses how OSM's Unobligated Funds Reports can be misleading or misinterpreted. Can OSM suggest/implement solutions to improve the expenditure reports OSM submits to the DOI to include enough detail to more accurately characterize the status of program funding?

APPENDIX D

Tabular Summaries of Data Pertaining to Mining, Reclamation and Program Administration

These tables present data pertinent to mining operations and State and Federal regulatory activities within Pennsylvania. They also summarize funding provided by OSM and Pennsylvania staffing. Unless otherwise specified, the reporting period for the data contained in all tables is the same as the evaluation year. Additional data used by OSM in its evaluation of Pennsylvania's performance is available for review in the evaluation files maintained by the Harrisburg OSM 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. However, with Change Notice REG-8-1, effective July 1, 2008, the calendar year reporting period in Table 1 for coal produced for sale, transfer or use was reestablished and is effective for the 2008 evaluation year. In addition, for the 2008 evaluation report, coal production for the two prior years reported on Table 1 was recalculated on a calendar year basis so that all three years of production reported in the table are directly comparable. This difference in reporting periods 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 PRODUCED FOR SALE , TRANSFER, OR USE¹
(Millions of short tons)

Calendar Year	Surface Mines	Underground Mines	Total
2011	11.404	44.709	56.113

¹Coal production is the gross tonnage (short tons) and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported by each mining company to OSM during the following quarter on line 8(a) of form OSM-1, "Coal Reclamation Fee Report." 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 other sources due to varying methods of determining and reporting coal production.

TABLE 1
COAL PRODUCED FOR SALE, TRANSFER, OR USE
DURING THE CALENDAR YEAR
 (Millions of short tons)

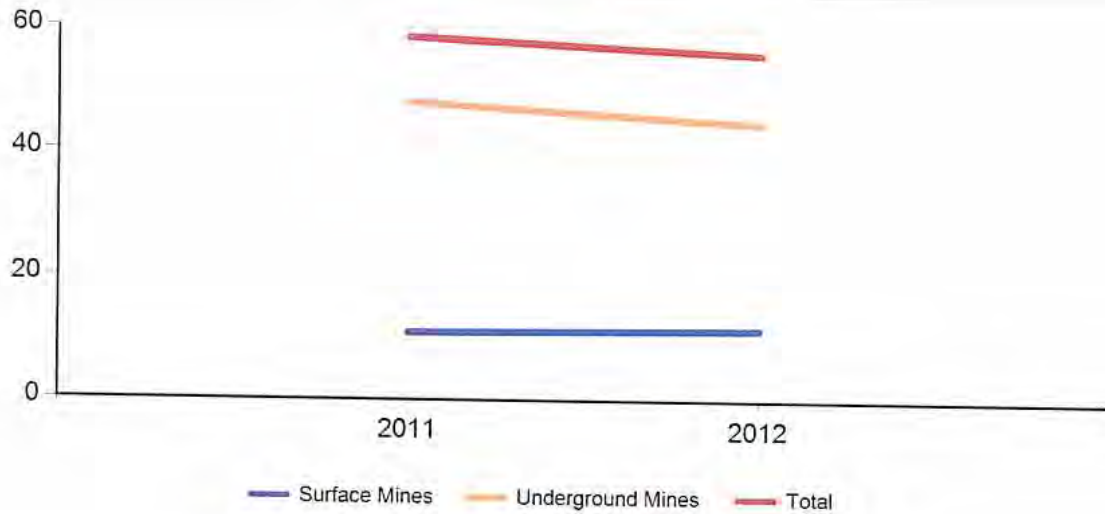


TABLE 1
COAL PRODUCED FOR SALE , TRANSFER, OR USE ^A
 (Millions of short tons)

Calendar Year	Surface Mines	Underground Mines	Total
2010	10.8	47.9	58.7
2011	11.4	44.7	56.1

^A Coal production is the gross tonnage (short tons) and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported by each mining company to OSM during the following quarter on line 8(a) of form OSM-1, "Coal Reclamation Fee Report." 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 other sources due to varying methods of determining and reporting coal production.

TABLE 2

PERMANENT PROGRAM PERMITS, INITIAL PROGRAM SITES, INSPECTABLE UNITS, AND EXPLORATION

Numbers of Permanent Program Permits and Initial Program Sites										Area in Acres ²											
Mines and Other Facilities	Permanent Program Permits			Initial Program Sites			Permanent Program Permits (Permit Area)			Initial Program Sites											
	Active	Inactive	Abandoned	Total	Active	Inactive	Abandoned	Total	Insp. Units ¹	Federal Lands	Private Lands	State/Tribal and Private Lands	Federal Lands	Private Lands	State/Tribal and Private Lands	Total Area					
Surface Mines	728	456	140	1,324	0	0	0	0	1,324	0	283,788	0	0	0	0	283,788					
Underground Mines	92	62	25	179	0	0	0	0	179	0	48,128	0	0	0	0	48,128					
Other Facilities	104	21	21	146	0	0	0	0	146	0	14,162	0	0	0	0	14,162					
Total	924	539	186	1,649	0	0	0	0	1,649	0	346,078	0	0	0	0	346,078					
Permanent Program Permits and Initial Program Sites (Number on Federal Lands: 0)										Average Acres per Site:			209.87								
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):										1.00			Average Acres per IU:			209.87					
Permanent Program Permits in Temporary Cessation:										Total Number:			9			Number More than 3 Years:			0		
EXPLORATION SITES										Total Number of Sites			Sites on Federal Lands⁴			Exploration Inspectable Units					
Exploration Sites with Permits:										0			0			0					
Exploration Sites with Notices:										407			0			0					

¹An Inspectable Unit may include multiple small and neighboring Permanent Program Permits or Initial Program Sites that have been grouped together as one Inspectable Unit, or conversely, an Inspectable Unit may be one of multiple Inspectable Units within a Permanent Program Permit.

²Total Inspectable Units calculation includes Exploration Sites Inspectable Units

³When a Permanent Program Permit or Initial Program Site contains both Federal and Private lands, the acreage for each type of land is in the applicable column.

⁴The number of Exploration Sites on Federal lands includes sites with exploration permits or notices any part of which is regulated by the state under a cooperative agreement or by OSM pursuant to the Federal Lands Program, but excludes exploration sites that are regulated by the Bureau of Land Management

**CHART 2A HISTORICAL TRENDS
NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS**

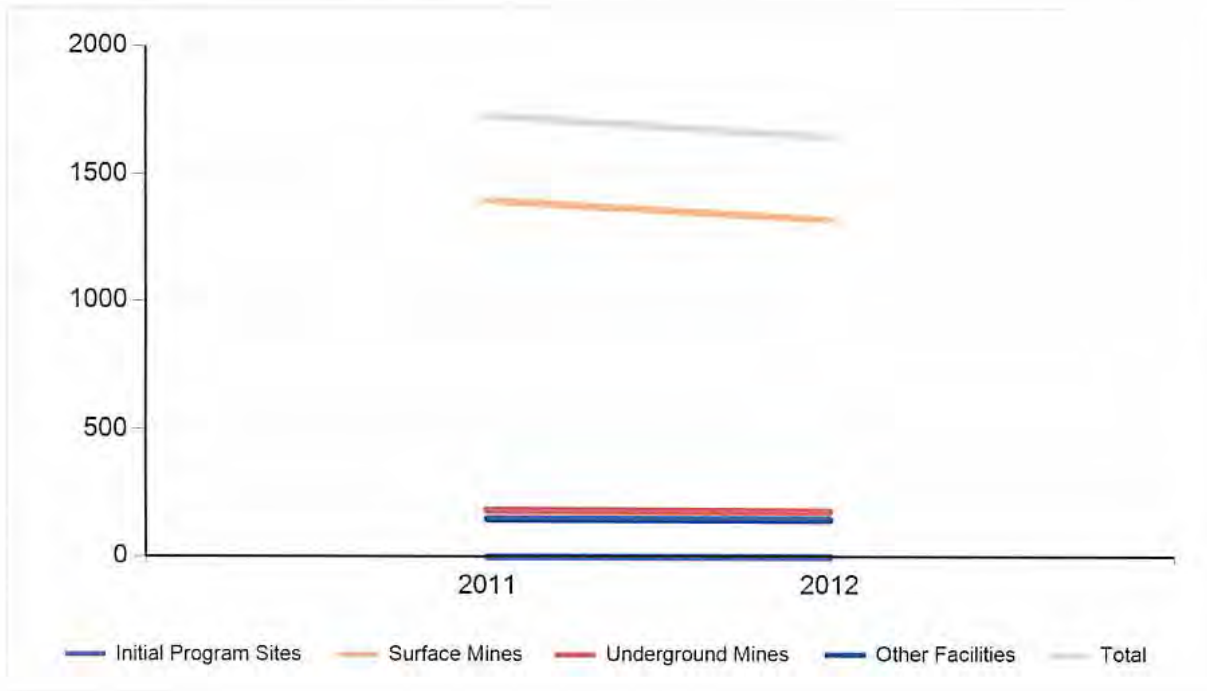


TABLE 2A

NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS

Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2011	0	1398	184	149	1731
2012	0	1324	179	146	1649

CHART 2B HISTORICAL TRENDS
AREA OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS

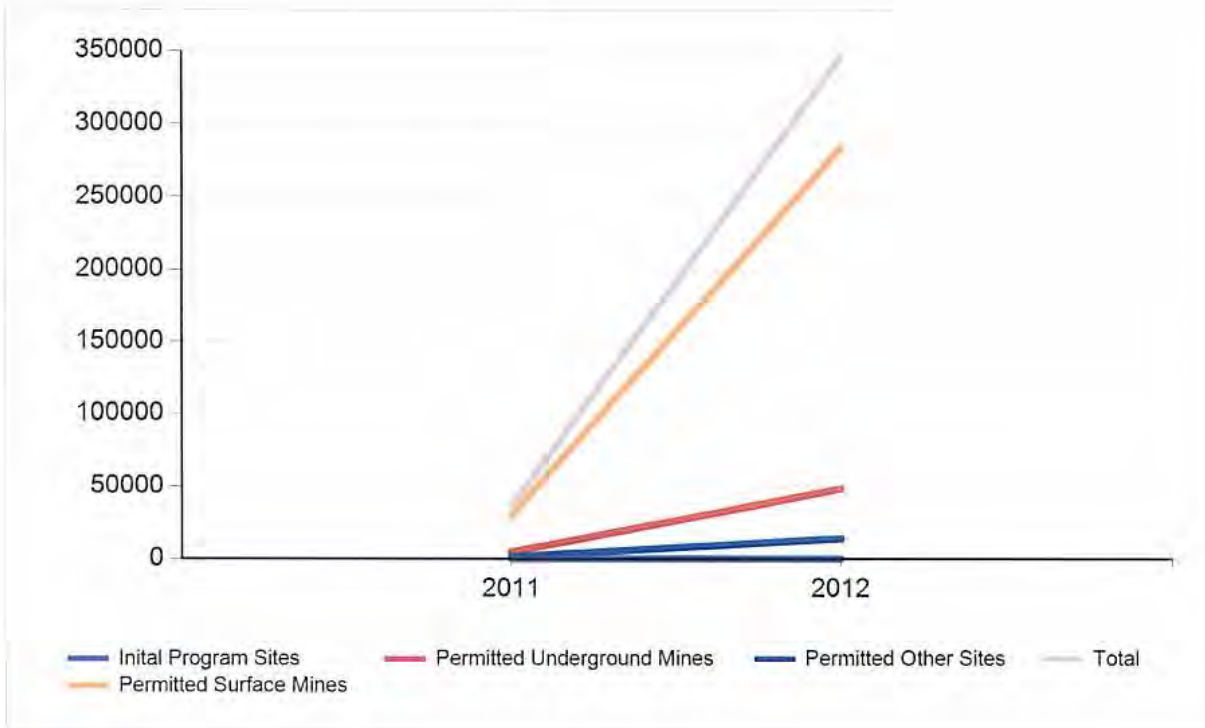


TABLE 2B

AREA OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS

Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2011	0.0	29695.1	4827.6	1245.5	35768.2
2012	0.0	283788.0	48128.0	14162.0	346078.0

TABLE 3
PERMITS ALLOWING SPECIAL CATEGORIES OF MINING

Special Category of Mining	30 CFR Citation Defining Permits Allowing Special Mining Practices	Numbers of Permits	
		Issued During EY	Total Active and Inactive Permits
Experimental Practice	785.13(d)	0	0
Mountaintop Removal Mining	785.14(c)(5)	0	0
Steep Slope Mining	785.15(c)	0	0
AOC Variances for Steep Slope Mining	785.16(b)(2)	0	0
Prime Farmlands Historically Used for Cropland	785.17(e)	0	0
Contemporaneous Reclamation Variances	785.18(c)(9)	0	0
Mining on or Adjacent to Alluvial Valley Floors	785.19(e)(2)	0	0
Auger Mining	785.20(c)	0	0
Coal Preparation Plants Not Located at a Mine Site	785.21(c)	0	0
In-Situ Processing	785.22(c)	0	0
Remining	773.15(m) and 785.25	0	0
Activities in or Within 100 Feet of a Perennial or Intermittent Stream	780.28(d) and/or (e) 784.28(d) and/or (e)	0	0

**CHART 3A HISTORICAL TRENDS
PERMITS ALLOWING SPECIAL CATEGORIES OF MINING**

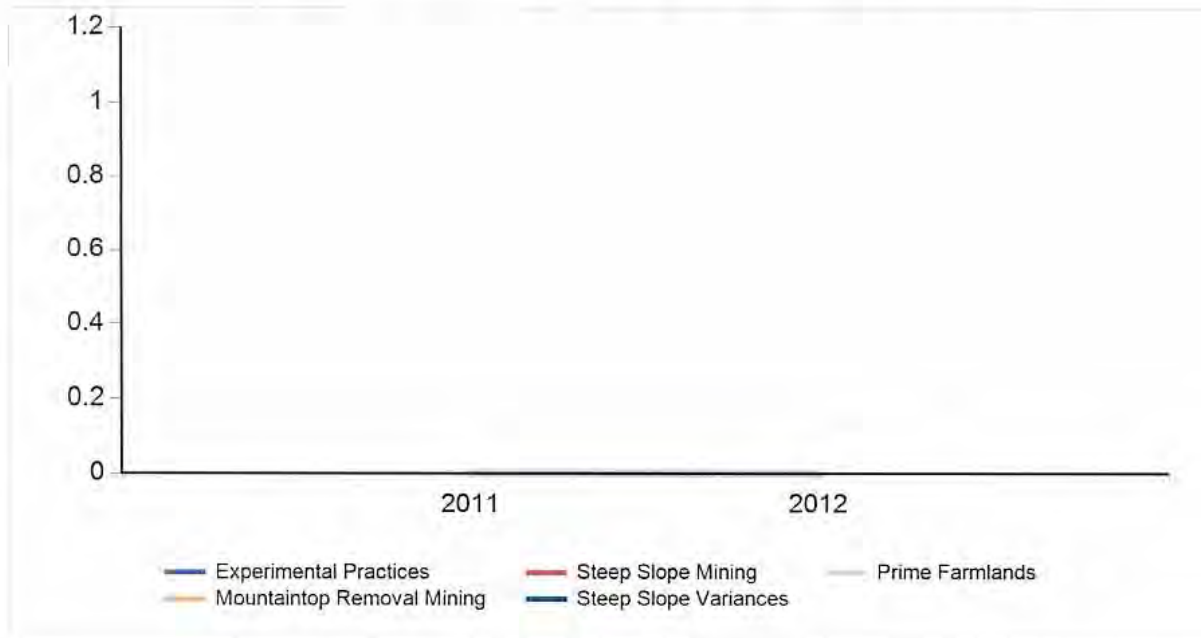


TABLE 3A

NUMBER OF PERMITS ISSUED AND REVISIONS APPROVED

Year	Experimental Practices	Mountaintop Removal Mining	Steep Slope Mining	Steep Slope Variances	Prime Farmlands
2011	0	0	0	0	0
2012	0	0	0	0	0

**CHART 3B HISTORICAL TRENDS
PERMITS ALLOWING SPECIAL CATEGORIES OF MINING**

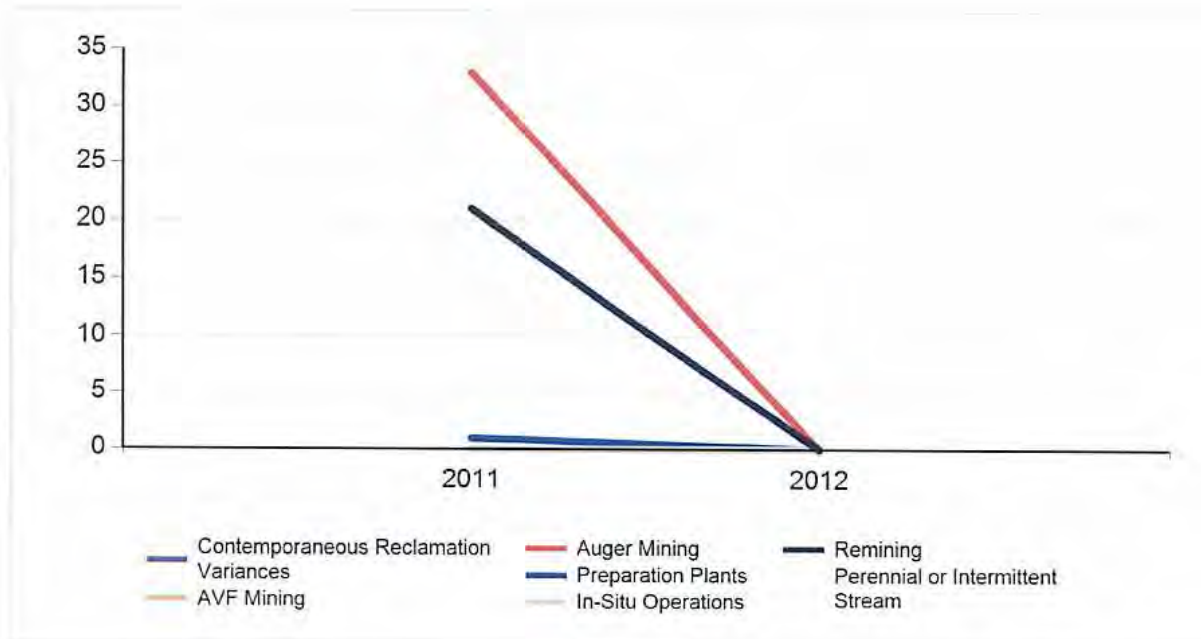


TABLE 3B

NUMBER OF PERMITS ISSUED AND REVISIONS APPROVED

Year	Contemporaneous Reclamation Variances	AVF Mining	Auger Mining	Preparation Plants Not at Mine Site	In-Situ Operations	Remining	Perennial/ Intermittent Streams
2011	0	0	33	1	0	21	0
2012	0	0	0	0	0	0	0

TABLE 4

PERMITTING ACTIVITY

Type of Application	Surface Mines			Underground Mines			Other Facilities			Totals		
	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres ¹	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres
New Permits	58	64	2,948	3	4	126	1	3	0	62	71	3,074
Renewals	158	144		23	10		15	9		196	163	
Transfers, sales, and assignments of permit rights	26	20		1	8		2	1		29	29	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										0	0	
Exploration notices ²											292	
Revisions that do not add acreage to the permit area		198			57			37			292	
Revisions that add acreage to the permit area but are not incidental boundary revisions	0	0	0	0	0	0	0	0	0	0	0	0
Incidental boundary revisions	0	0	0	0	0	0	0	0	0	0	0	0
Totals	242	426	2,948	27	79	126	18	50	0	287	847	3,074

Permits terminated for failure to initiate operations:

Number: 0

Acres: 0.0

Acres of Phase III bond releases (Areas no longer considered to be disturbed):

Acres: 4,479.0

Permits in temporary cessation

Notices received: 9

Terminations: 0

Midterm permit reviews completed that are not reported as revisions

Number: 0

¹Includes only the number of acres of proposed surface disturbance

²State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

TABLE 5
OFF-SITE IMPACTS
EXCLUDING BOND FORFEITURE SITES

RESOURCES AFFECTED	People			Land			Water			Structures		
	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
DEGREE OF IMPACT												
NUMBER OF IMPACT EVENTS												
Blasting	1	0	0	0	0	0	0	0	0	3	0	0
Land Stability	0	0	0	10	5	0	0	0	0	0	0	0
Hydrology	0	1	0	3	1	0	58	17	9	0	0	0
Encroachment	0	0	0	5	0	0	0	0	0	0	1	0
Other	3	0	0	14	0	0	5	0	0	0	0	0
Total	4	1	0	32	6	0	63	17	9	3	1	0

Total Number of Inspectable Units²: 1711

Inspectable Units with one or more off-site impacts: 88

Inspectable Units free of off-site impacts: 1623

% of Inspectable Units free of off-site impacts: 95

OFF-SITE IMPACTS AT BOND FORFEITURE SITES

RESOURCES AFFECTED	People			Land			Water			Structures		
	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
DEGREE OF IMPACT												
NUMBER OF IMPACT EVENTS												
Blasting	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	0	0	0	0	0	0	0	0	0	0	0	0
Hydrology	0	0	0	0	0	0	0	0	0	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0

Total Number of Inspectable Units²: 59

Inspectable Units with one or more off-site impacts: 37

Inspectable Units free of off-site impacts: 22

% of Inspectable Units free of off-site impacts: 37

TABLE 5
(Continued)

**TOTAL OFF-SITE IMPACTS
 INCLUDING BOND FORFEITURE SITES**

RESOURCES AFFECTED	DEGREE OF IMPACT	People			Land			Water			Structures		
		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	4	1	0	0	0	0	0	0	0	0	3	0	0
Land Stability	15	0	0	0	10	5	0	0	0	0	0	0	0
Hydrology	89	0	1	0	3	1	0	58	17	9	0	0	0
Encroachment	6	0	0	0	5	0	0	0	0	0	0	1	0
Other	22	3	0	0	14	0	0	5	0	0	0	0	0
Total	136	4	1	0	32	6	0	63	17	9	3	1	0

Total Number of Inspectable Units²: 1770
 Inspectable Units with one or more off-site impacts: 125
 Inspectable Units free of off-site impacts: 1645

% of Inspectable Units free of off-site impacts¹: 93

¹ % of Inspectable Units free of off-site impacts is based on the number of Inspectable Units at the end of the Evaluation Year. The number of Inspectable Units may vary during the Evaluation Year.

² Total number of Inspectable Units is (1) the number of Inspectable Units at the end of the Evaluation Year and (2) the number of Inspectable Units removed during the Evaluation Year and (3) the number bond forfeiture sites that were reclaimed during the Evaluation Year and (4) the number of bond forfeiture sites that were unreclaimed during the Evaluation Year.

**CHART 5A HISTORICAL TRENDS
PERCENT OF INSPECTABLE UNITS FREE OF OFF-SITE
IMPACTS**

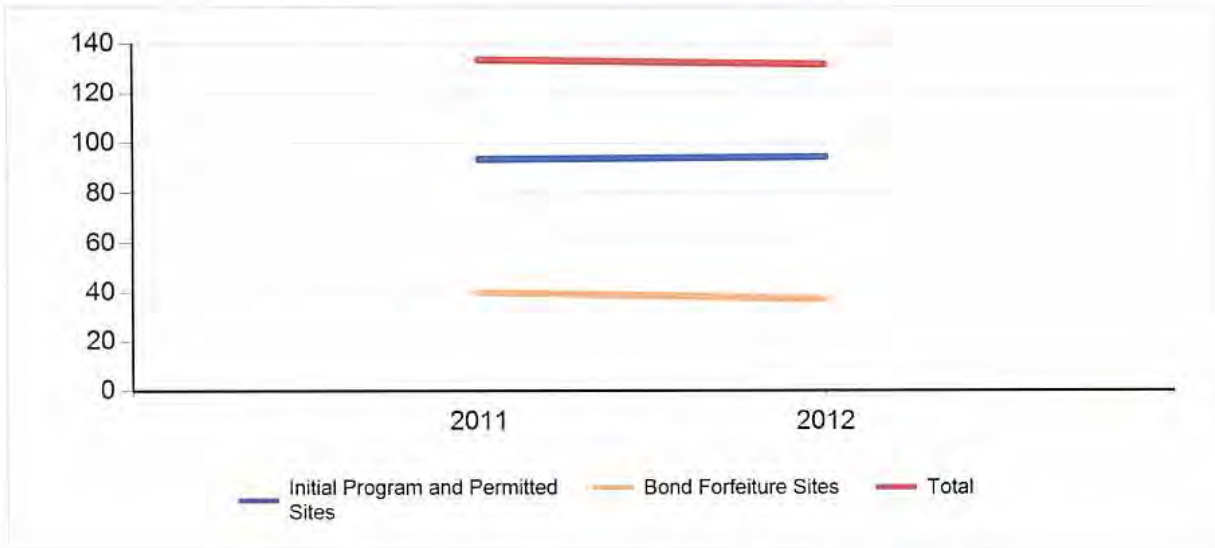


TABLE 5A

PERCENT OF INSPECTABLE UNITS FREE OF OFF-SITE IMPACTS

Year	Initial Program and Permanent Program Permits	Bond Forfeiture Sites
2011	93.6	40.0
2012	94.6	37.3

TABLE 6
SURFACE COAL MINING AND RECLAMATION ACTIVITY

Areas of Phase I, II, and III Bond Releases During the Evaluation Year (EY)

Phase I Releases	Phase II Releases			Phase III Releases			Total Acres Released During the EY	
	Total Acres Released in Approved Phase II Releases	Acres not previously released under Phase I	Total Acres Released in Approved Phase III Releases	Acres not previously released under Phase II	Acres not previously released under Phase I or II			
2,579		0			0	Phase I	2,579	
	3,328			0		Phase II	3,328	
			4,479			Phase III	4,479	
Cumulative Total Acres Released under All Bond Release Phases at the End of the Evaluation Year 23,524								
Number of Permanent Program Permits with Jurisdiction Terminated Under Phase III Bond Release 0								
Initial Program Sites with Jurisdiction Terminated During the Evaluation Year								
Number of Inspectable Units Removed								
							Administrative Adjustments	0
							Bond Forfeiture	1443
Areas of Permits Bonded for Disturbance by Surface Coal Mining and Reclamation Operations								
Total Acres at Start of EY							Total Acres at End of EY	Change in Acres During EY
New Area Bonded for Disturbance								3,074
Total Area Bonded for Disturbance							322,544	321,097 (1,447)
Area Bonded for Disturbance without Phase I Bond Release							247,259	204,000 (43,259)
Area Bonded for Disturbance for which Phase I Bond Release Has Been Approved							45,650	43,702 (1,948)
Area Bonded for Disturbance for which Phase II Bond Release Has Been Approved							33,829	27,611 (6,218)
Area Bonded for Disturbance with Bonds Forfeited During Evaluation Year								42
Area Bonded for Remaining							0	335
Areas of Permits Disturbed by Surface Coal Mining and Reclamation Operations								
Disturbed Area							0	0

TABLE 7

**BOND FORFEITURE ACTIVITY
(Permanent Program Permits)**

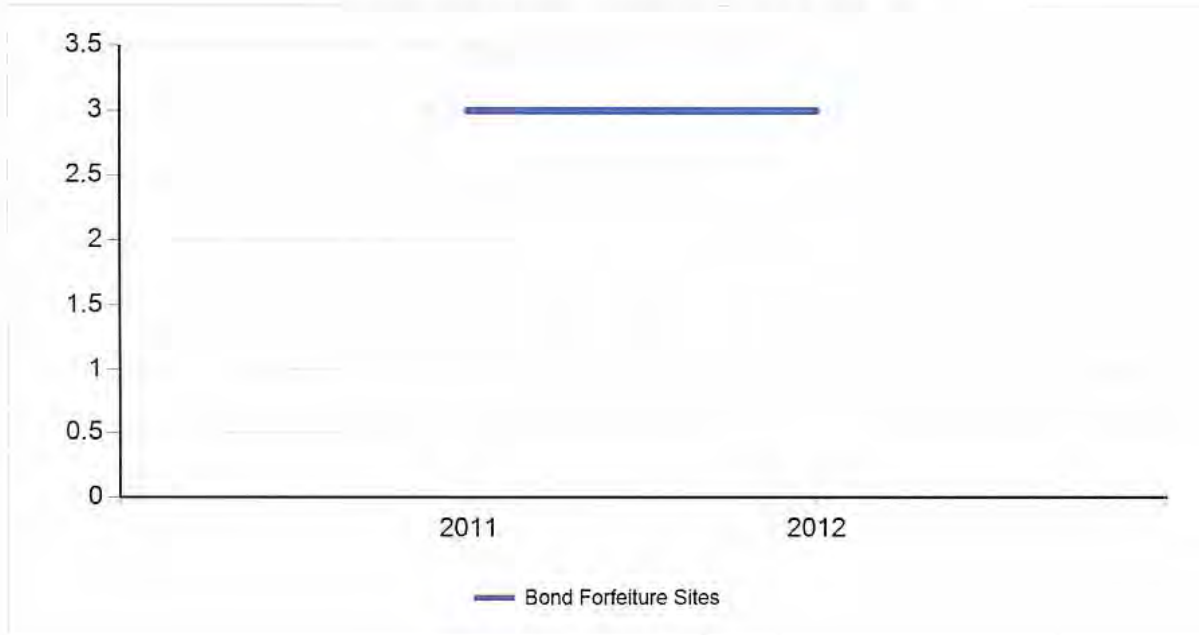
Bond Forfeiture and Reclamation Activity	Number of Sites	Dollars	Acres
Sites with bonds forfeited and collected that were un-reclaimed at the start of the current Evaluation Year (i.e., end of previous Evaluation Year) ¹	58		882
Sites with bonds forfeited and collected during the current Evaluation Year	1	76,803	42
Sites with bonds forfeited and collected that were re-permitted during the current Evaluation Year	0		0
Sites with bonds forfeited and collected that were reclaimed during the current Evaluation Year	39		1,443
Sites with bonds forfeited and collected that were un-reclaimed at the end of the current Evaluation Year ¹	20		(519)
Sites with bonds forfeited but un-collected at the end of the current Evaluation Year	2		188
Forfeiture Sites with Long-Term Water Pollution			
Bonds forfeited, lands reclaimed, but water pollution is still occurring	37		
Bonds forfeited, lands reclaimed, and water treatment is ongoing	31		
Surety/Other Reclamation Activity In Lieu of Forfeiture			
Sites being reclaimed by surety/other party at the start of the current Evaluation Year (i.e., the end of previous Evaluation Year) ²	5		123
Sites where surety/other party agreed during the current Evaluation Year to do reclamation	0		0
Sites being reclaimed by surety/other party that were re-permitted during the current Evaluation Year	0		0
Sites with reclamation completed by surety/other party during the current Evaluation Year ³	2		14
Sites being reclaimed by surety/other party at the end of the current Evaluation Year ²	3		109

¹ Includes data only for those forfeiture sites not fully reclaimed.

² Includes all sites where surety or other party has agreed to complete reclamation and the site is not fully reclaimed.

³ These sites are also reported in Table 6, Surface Coal Mining and Reclamation Activity, because Phase III bond release would be granted on these sites.

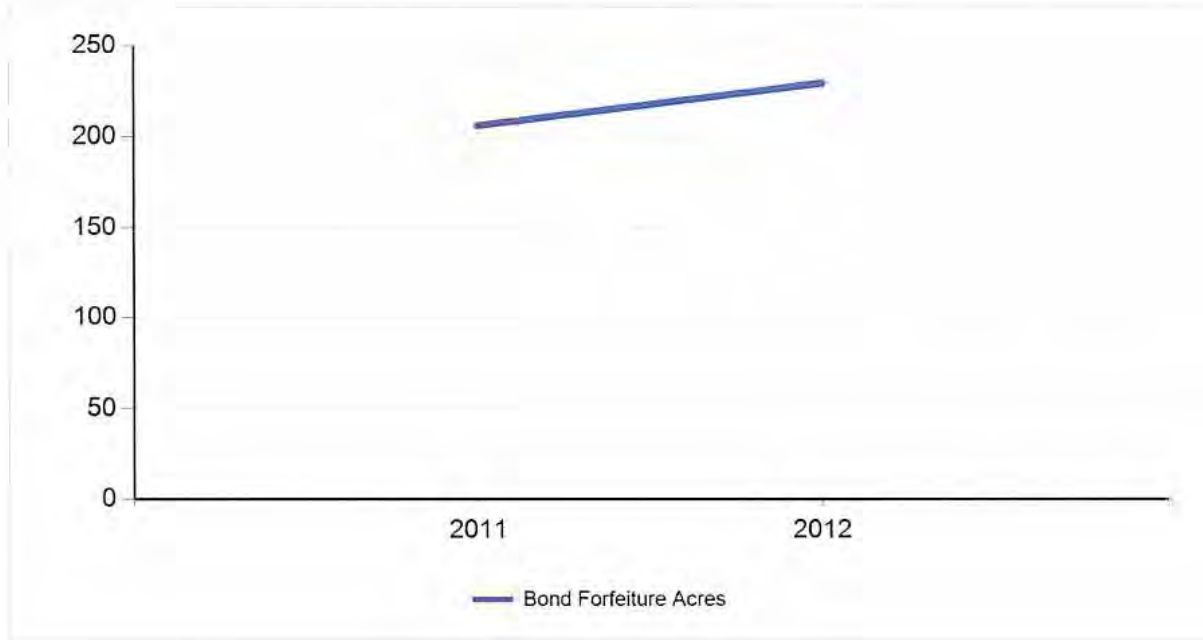
**CHART 7A HISTORICAL TRENDS
NUMBER OF BOND FORFEITURE SITES**



**TABLE 7A
NUMBER OF BOND FORFEITURE SITES**

Year	Bond Forfeiture Sites
2011	3
2012	3

**CHART 7B HISTORICAL TRENDS
ACREAGE OF BOND FORFEITURE SITES**



**TABLE 7B
ACREAGE OF BOND FORFEITURE SITES**

Year	Acres
2011	206
2012	230

**CHART 7C HISTORICAL TRENDS
NUMBER OF SITES WITH WATER POLLUTION STILL
OCCURRING**

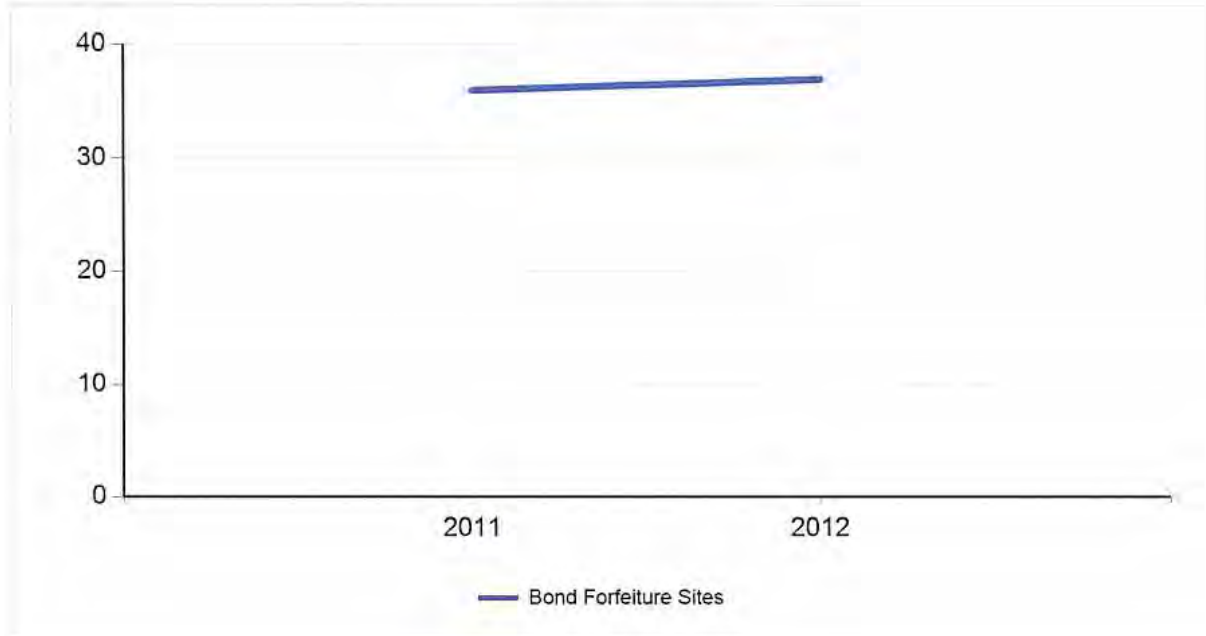


TABLE 7C

**NUMBER OF SITES WITH WATER POLLUTION
STILL OCCURRING**

Year	Sites
2011	36
2012	37

**CHART 7D HISTORICAL TRENDS
NUMBER OF SITES WITH WATER TREATMENT ONGOING**

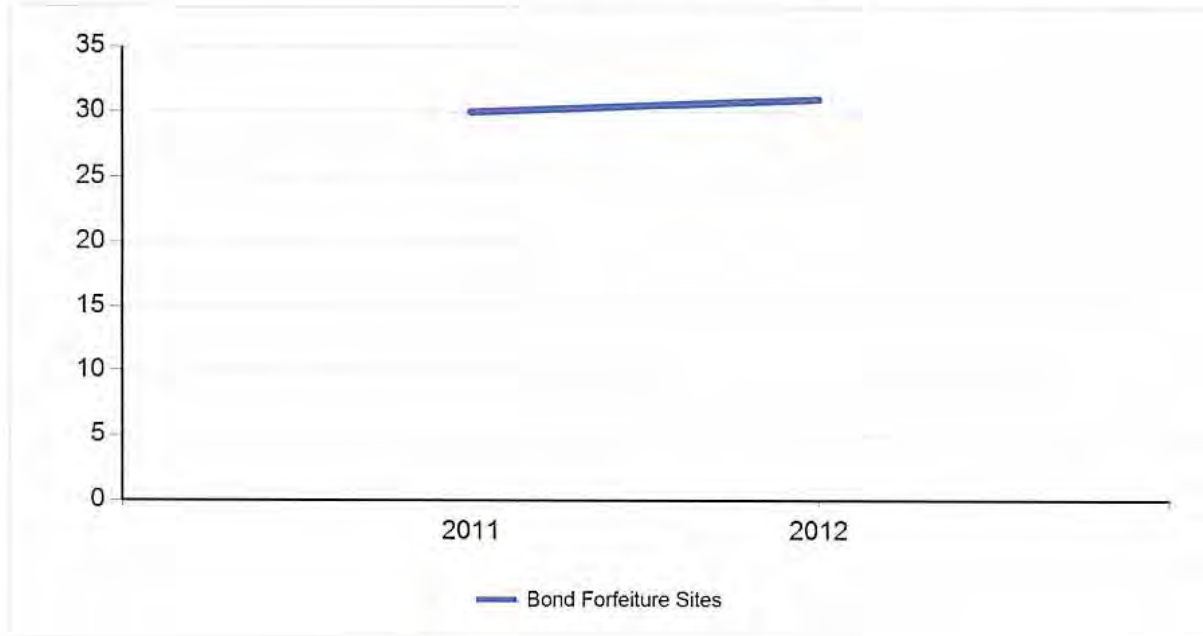


TABLE 7D

**NUMBER OF SITES WITH WATER
TREATMENT ONGOING**

Year	Sites
2011	30
2012	31

TABLE 8

REGULATORY AND AML PROGRAMS STAFFING

Function	Number of FTEs
Regulatory Program	
Permit Review and Maintenance	40.00
Inspection	76.00
Other (supervisory, clerical, administrative, fiscal, personnel, etc.)	95.00
Regulatory Program Total	211.00
AML Program Total	151.00
TOTAL	362.00

**CHART 8A HISTORICAL TRENDS
REGULATORY AND AML PROGRAMS STAFFING**

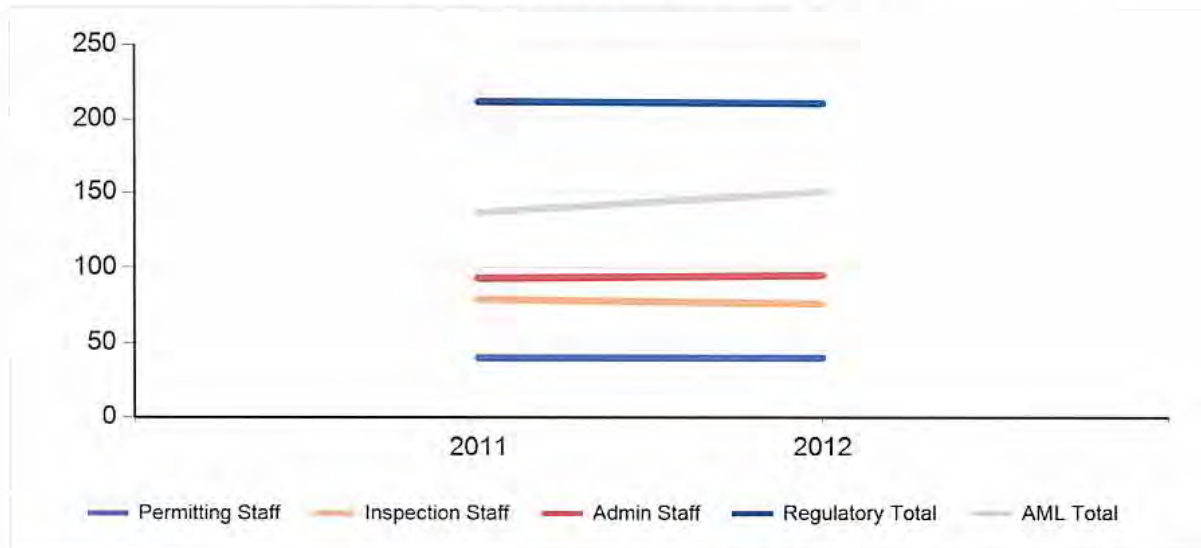


TABLE 8A

REGULATORY AND AML PROGRAMS STAFFING

Year	Regulatory Program				AML Program
	Permitting	Inspection	Admin	Total	
2011	40	79	93	212	137
2012	40	76	95	211	151

TABLE 9

**FUNDS GRANTED TO STATE OR TRIBE BY OSM
(Actual Dollars Rounded to the Nearest Dollar)**

Type of Funding	Federal Funds Awarded	Total Program Cost	Federal Funds Awarded as a Percentage of Total Program Costs
Regulatory Funding			
Administration and Enforcement Grant	11,582,292		
Other Regulatory Funding, if applicable	187,941		
Subtotal (Regulatory Funding)	11,770,233	23,164,584	51
Small Operator Assistance Program Grant Funding	0	0	
Abandoned Mine Land Reclamation Funding	67,152,367	67,152,367	100
Watershed Cooperative Agreement Program	298,064	2,025,030	15
TOTAL	79,220,664		

**CHART 9A HISTORICAL TRENDS
FUNDS GRANTED TO STATE OR TRIBE BY OSM**

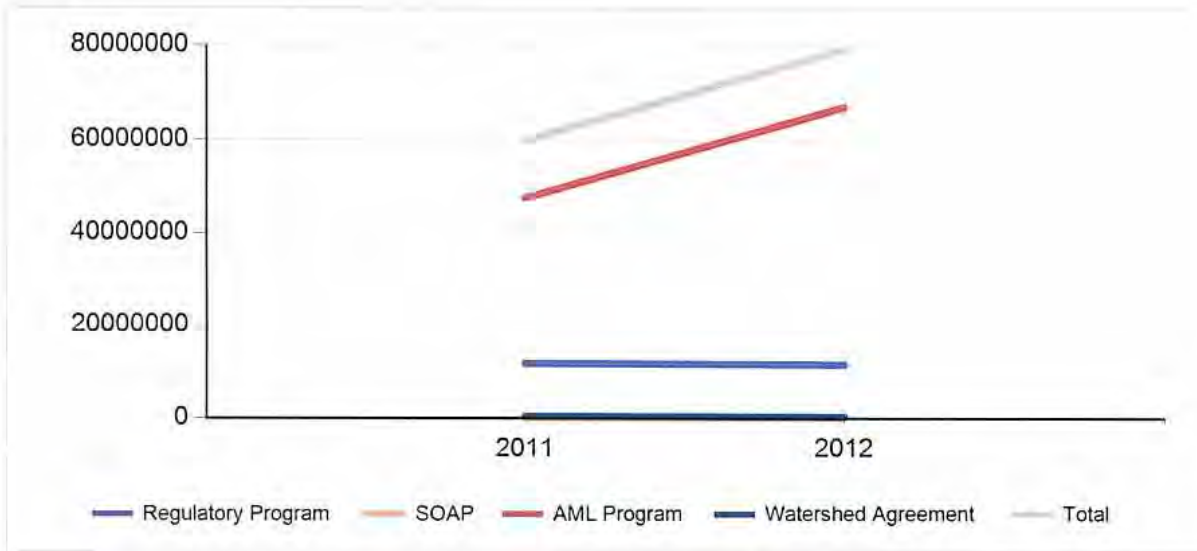


TABLE 9A

FUNDS GRANTED TO STATE OR TRIBE BY OSM

Year	Regulatory Program	SOAP	AML Program	Total
2011	11,971,265	0	47,627,365	60,002,408
2012	11,770,233	0	67,152,367	79,220,664

TABLE 10
STATE INSPECTION ACTIVITY

Permits and sites	Number of inspections conducted		Percent of required inspections conducted ¹		Permits and sites for which State met required inspection frequency		
	Complete inspections	Partial inspections	Complete inspections	Partial inspections	Complete inspections	Number	All inspections
COAL MINES AND FACILITIES							
Active	3,254	6138	0	0	0	0	0.0
Inactive	1,315	1225	0	0	0	0	0.0
Abandoned	403	265	0	0	0	0	0.0
TOTALS	4,972	7628	0	0	0	0	0.0
Exploration sites with permits ²	0	0					
Exploration sites with notices ²	49	21					

¹ Calculated on a site-specific basis. Excess complete inspections are considered partial inspections. For each site, any inspections in excess of the total number required by the approved program are not included.

² Includes all valid notices and permits. No inspection frequency data are provided since SMCRA does not establish a minimum numerical inspection frequency for coal exploration activities.

**CHART 10A HISTORICAL TRENDS
STATE OR TRIBAL INSPECTION ACTIVITY**

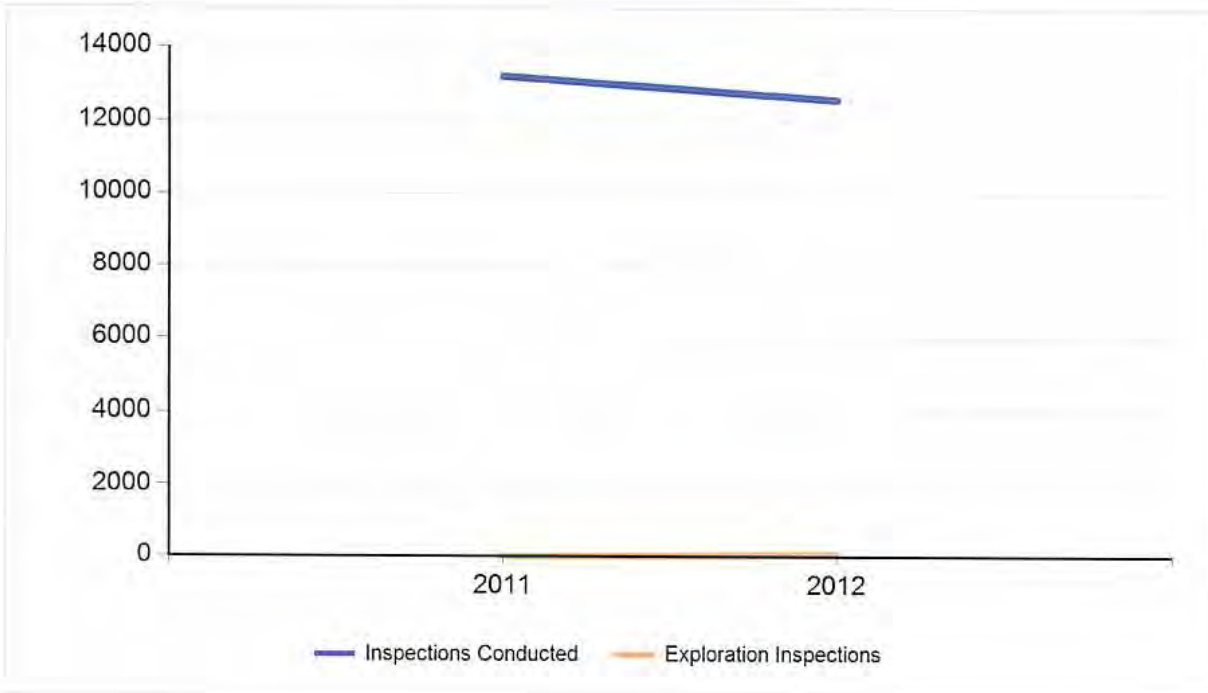


TABLE 10A

STATE OR TRIBAL INSPECTION ACTIVITY

Year	Inspections Conducted	Exploration Inspections
2011	13207	0
2012	12600	70

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY

Type of Enforcement Action	Number of Actions ¹	Number of Violations ¹
Notice of Violation	497	658
Failure-to-Abate Cessation Order	7	7
Imminent Harm Cessation Order	48	65

¹ Does not include actions and violations that were vacated.

**CHART 11A HISTORICAL TRENDS
STATE OR TRIBAL ENFORCEMENT ACTIVITY**

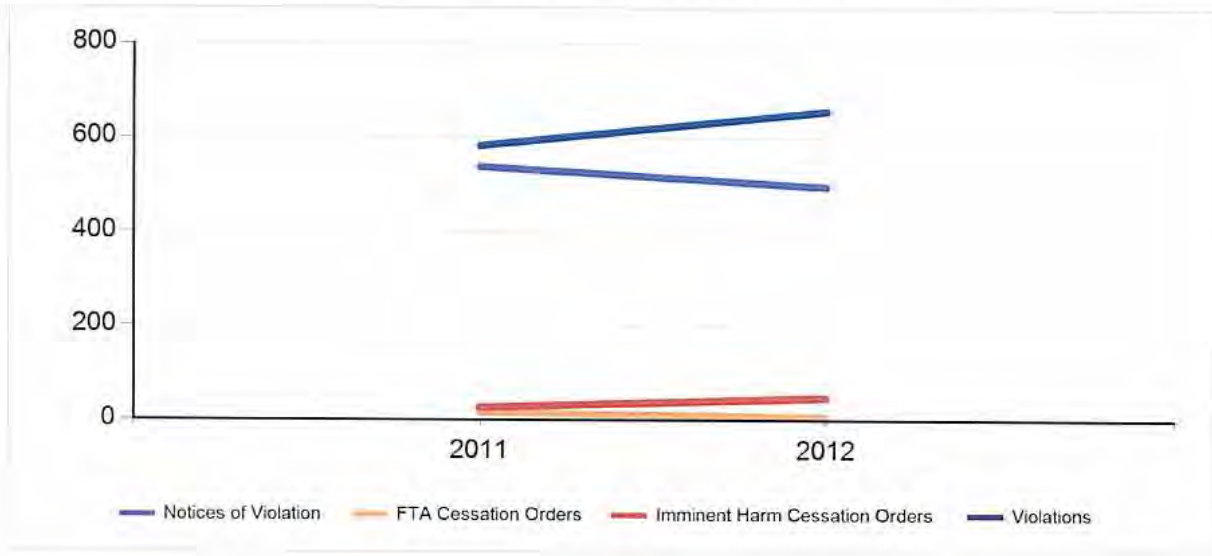


TABLE 11A

STATE OR TRIBAL ENFORCEMENT ACTIVITY

Year	Notices of Violation	Violations	FTA Cessation Orders	Imminent Harm Cessation Orders
2011	538	582	16	27
2012	497	658	7	48

TABLE 12

LANDS UNSUITABLE ACTIVITY

Activity	Number	Acres
Petitions Received	3	
Petitions Rejected	0	
Petitions Accepted	0	
Decisions Denying Petition	0	
Decisions Declaring Lands Unsuitable	1	0
Decisions Terminating Unsuitable Designations	0	0

**CHART 12A HISTORICAL TRENDS
LANDS UNSUITABLE ACTIVITY**

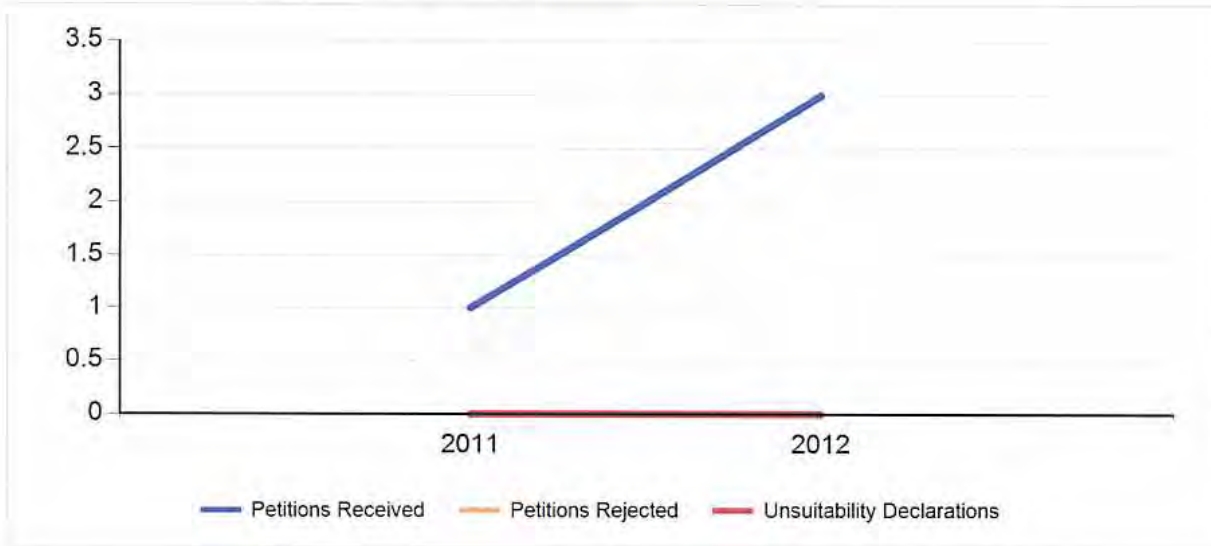


TABLE 12A

LANDS UNSUITABLE ACTIVITY

Year	Petitions Received	Petitions Rejected	Unsuitability Declarations
2011	1	0	0
2012	3	0	0

**CHART 12B HISTORICAL TRENDS
ACRES DECLARED UNSUITABLE**

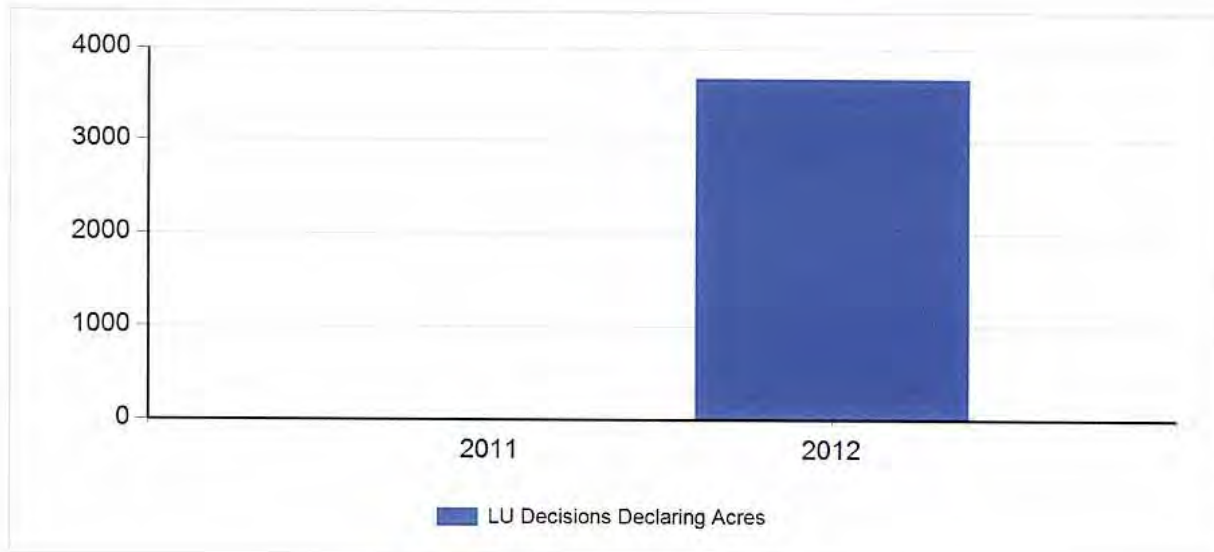


TABLE 12B

ACRES DECLARED UNSUITABLE	
Year	Acres Declared Unsuitable
2011	0.0
2012	3688.0

TABLE 13
OSM OVERSIGHT ACTIVITY

Oversight Inspections and Site Visits					
	Complete		Partial		Total
	Joint	Non-Joint	Joint	Non-Joint	
Oversight Inspections	137	1	82	39	259
Site Visits	Technical Assistance		Other		Total
	5		47		52

Violations Observed by OSM and Citizen Requests for Inspection¹

Type of Action	Total number of each action
How many violations were observed by OSM on oversight inspections?	174
Of the violations observed, how many did OSM defer to State action during inspections?	143
Of the violations observed, how many did OSM refer to the State through Ten-Day Notices? ²	7
How many Ten-Day Notices did OSM Issue for observed violations? ³	3
How many Ten-Day Notices did OSM issue to refer citizen requests for inspection?	8
How many Notices of Violation did OSM issue?	1
How many Failure-to-Abate Cessation Orders did OSM issue?	1
How many Imminent Harm Cessation Orders did OSM issue?	0

OSM Action for Delinquent Reporting or Non-Payment of Federal AML Reclamation Fees

How many Ten-Day Notices for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?	0
How many Notices of Violation for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?	0
How many Federal Failure-to-Abate Cessation Orders for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?	0

¹ This section does not include actions for delinquent reporting or non-payment of Federal AML fees that are reported in the last section of the table.

² Number of violations contained in Ten-Day Notices not including those issued to refer citizen requests for inspection.

³ Number of Ten-Day Notices issued not including those to refer citizen requests for inspection.

**CHART 13A HISTORICAL TRENDS
OSM OVERSIGHT ACTIVITY**

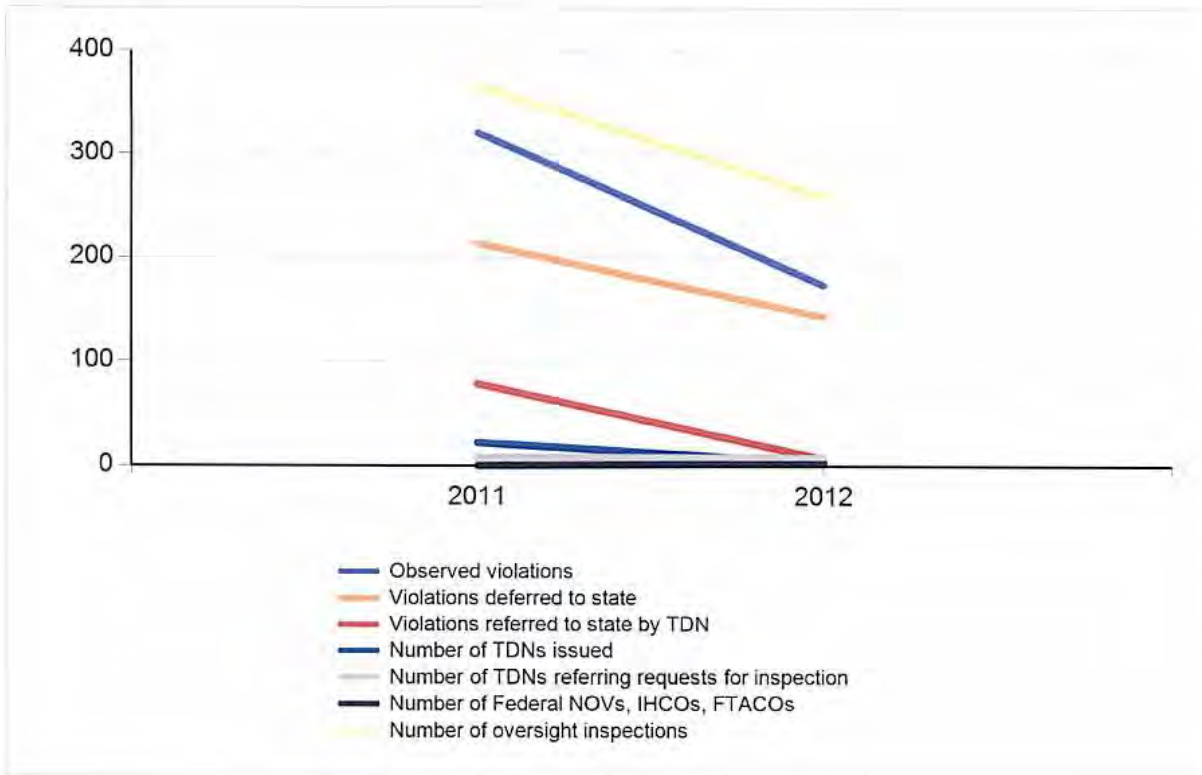


TABLE 13A

OSM OVERSIGHT ACTIVITY

Year	Number of violations observed on OSM oversight inspections	Number of violations deferred to state action	Number of violations referred to state by TDN	Number of TDN's issued	Number of TDN's issued to refer requests for inspection	Number of Federal NOVs, FTACOs, & IHCOs issued	Number of oversight inspections
2011	321	214	78	22	8	0	368
2012	174	143	7	3	8	2	259