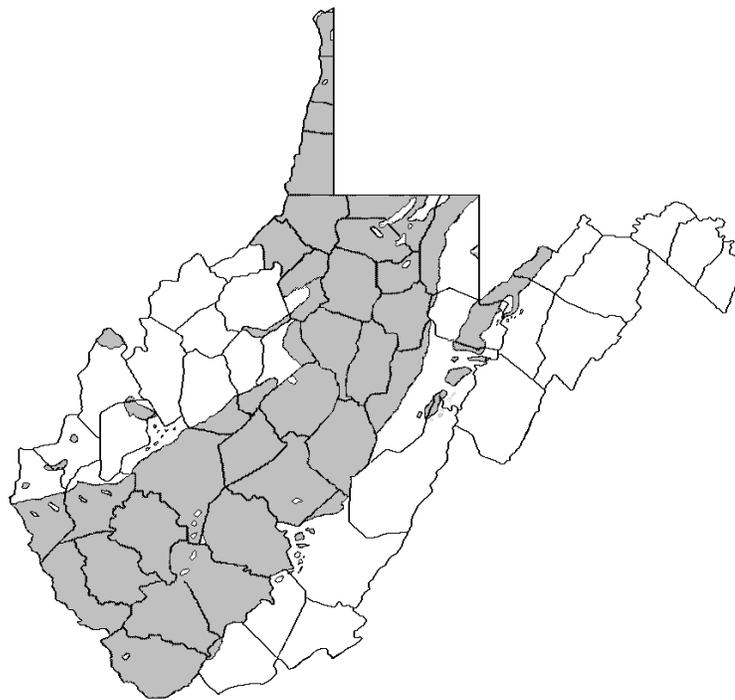


2011

**WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

ANNUAL EVALUATION REPORT



PREPARED BY

*Charleston Field Office
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Charleston, West Virginia*

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Report

for the

Regulatory and Abandoned Mine Land Reclamation Programs

Administered by the West Virginia Department of Environmental Protection

of

WEST VIRGINIA

for

Evaluation Year 2011

July 1, 2010 to June 30, 2011

Prepared by

Charleston Field Office
September 2011

Executive Summary

This 2011 Annual Evaluation Report contains information regarding the effectiveness of the West Virginia Department of Environmental Protection (WVDEP) in the implementation of the Surface Mining Control and Reclamation Act of 1977 during the period of July 1, 2010, to June 30, 2011, with occasional notations of significant relevant events that occurred after the end of the 2011 Evaluation Year. The Office of Surface Mining Reclamation and Enforcement (OSM) oversees the Regulatory and Abandoned Mine Lands Programs of the WVDEP and encourages public input into the process. The OSM Charleston Field Office staff participates in numerous public meetings, trainings and other events to encourage interaction and facilitate public participation; and, for the last several years, has placed all topical reports and performance agreements on the Charleston Field Office website. Every year, the Charleston Field Office notifies known stakeholders and media of its finished and planned activities and offers to meet with interested parties upon request. OSM staff interacts with citizens and the media in person or by phone on a frequent basis.

Inspection and site visits are an integral part of OSM's oversight activities, but OSM also utilizes programmatic reviews involving experts in hydrology or engineering to identify potential problems. This report evaluates the effectiveness of the WVDEP Regulatory and Abandoned Mine Land Programs by discussing the results of OSM's inspection activities as well as accomplishments and successes of the program, results of oversight topic reviews, and program problems or issues, including litigation. This report also discusses those topics where OSM provided technical assistance to the State. These topics are covered in separate sections of the report.

I. Regulatory Program Summary

State Activities

Information on coal sales is gathered and reported on the calendar year rather than the evaluation year. During the 2010 calendar year, approximately ten million more tons of coal was sold in West Virginia than in the previous calendar year, with underground mining methods increasing sales from approximately 75.4 million tons to 86.3 million tons. Sales from surface mine coal were lower in 2010, down from 51.6 million tons in 2009 to 50.8 million tons in 2010.

The remaining information is based on the evaluation year, from July 1, 2010 to June 30, 2011. During the 2011 Evaluation Year, the total number of inspectable units was 2,112, slightly less than the 2010 number of 2,139. The number of permitted acres in 2011 increased from approximately 351,410 acres in 2010 to 352,274 in 2011. WVDEP had 292 fewer permitting actions during this evaluation year. Most of the new permits were for

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underground mines or other facilities, with only six new surface mining permits issued, whereas in 2010, there were 15 surface mine permits issued.

In 2011, WVDEP conducted 265 more complete inspections (7,683 in 2011 versus 7,418 in 2010), and 1,009 more partial inspections (16,023 in 2011 versus 15,014 in 2010). In 2011, WVDEP inspectors completed approximately 13% more partial inspections than the estimated number of required partial inspections and conducted 91% of the required complete inspections. No significant changes were observed in the enforcement activities. In 2011, the WVDEP issued 857 Notices of Violations, 46 Cessation Orders due to operators not abating the violations, and 17 Cessation Orders based on imminent harm. This compares to 883 Notices of Violations, 33 Cessation Orders due to operators not abating the violations, and 16 Cessation Orders based on imminent harm in 2010.

In the beginning of the 2011 Evaluation Year, there were 306 bond forfeiture sites which were not fully reclaimed, and by June 30, 2011, the number was reduced to 291. Of those 291 sites not fully reclaimed at the end of this year, 172 require land reclamation and/or construction activities for water restoration. Reclamation is complete on 119 sites but water treatment is ongoing. The total number of bond forfeiture sites includes five sites which were forfeited this year, and three sites added to the bond forfeiture inspection list from previously reclaimed forfeited sites (compared to 12 sites forfeited in 2010). In the 2010 Evaluation Year, 30 sites were reclaimed, compared to 23 sites reclaimed this year.

Staffing for both the Regulatory and Abandoned Mine Land programs has not significantly changed. In 2010, the regulatory program had 235 full time employees compared to 233 in 2011. The abandoned mine land program had 62 full time employees in 2010 compared to 59 in 2011. OSM has concerns about adequate staffing in both programs as discussed in more detail in the report.

Accomplishments and Successes

- During the evaluation year, two Memorandum of Understandings and two OSM Regulatory Intern Program Cooperative Agreements were executed to provide WVDEP funding to hire 17 regulatory interns through the Governor's Internship Program. Twelve of the interns were used to convert quarterly water monitoring data, in-stream data, and baseline water quality data into a format that could be uploaded into the State's electronic database. The five other interns were used to update the State's database to include information from existing permit files regarding pre and post mining land uses, method of mining, variances, etc.
- The WVDEP Office of Special Reclamation has converted many of their lime dosing systems (used for acid mine drainage treatment) to hydrated lime rather than pebble lime. Hydrated lime, although slightly more expensive than pebble

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lime (\$20/truck load), dissolves more readily, resulting in reduced amounts of undissolved lime that accumulates in the initial settling pond. This conversion has increased treatment efficiencies by being more chemically efficient and has decreased sludge pumping frequencies thereby, decreasing pumping costs.

- OSM's oversight of the bond forfeiture program and the State's reporting to its Special Reclamation Fund Advisory Council continues to show significant progress toward eliminating the backlog and time delays in reclamation.
- On June 14, 2011, WVDEP hosted a meeting with all the various researchers and regulatory agencies involved in underground mine pools in West Virginia to assist in future decisions on further research and minimize duplication of efforts.
- OSM completed a study this evaluation year and found that WVDEP was appropriately issuing permits and enforcing regulations governing approximate original contour. Site inspections have verified that backfilling and grading are following the approved plan and approximate original contour is being achieved.

National Measurement Elements and National Priority Reviews

OSM establishes national measurement elements to report in the National OSM Annual Report and also creates national priority topics. The following is a summary of the national measurements and issues in West Virginia.

- **Off-Site Impacts:** The sites reported as free of offsite impacts dropped this year from 91% to 86%. OSM finds this reported drop to be largely related to an improvement in reporting measures rather than an increase in actual off-site impacts. Last year, OSM did an internal review and discovered that all violations from the State's computer systems that could be considered as having an offsite impact were not being counted, and took corrective action to improve the count.
- **Reclamation Success:** OSM inspections verified that state bond release data is still a valid measurement of reclamation success. WVDEP granted 56 Phase III bond releases (47 permits and 9 incremental Phase III bond releases), totally 5,318 acres, representing complete restoration of land and water resources.
- **Customer Service:** OSM conducted a review of the public notification process concerning the application for bond release. The study found that the State was following its program the majority of the time, but needed to change its procedures to assure the public had access to application material during the official public comment period. WVDEP concurred with this finding and agreed to change its procedures.

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- **National Priority Review - State Bond Calculations:** West Virginia's alternative bonding system relies on a pool of funds to supplement individual bonds in the event of forfeiture. OSM's review found the State was reclaiming to program standards and making satisfactory progress in eliminating the backlog of forfeitures identified as a problem in 2001. WVDEP is also treating water at over 120 sites with acid mine drainage. The biggest challenge at this time is finding a solid financial approach to guarantee funding of this water treatment without bankrupting the pool over the long term. At this time, OSM finds that WVDEP and the State's Special Reclamation Fund Advisory Council are following program approval expectations by keeping the fund solvent while looking at various alternatives for a long term solution. Resolution of the litigation concerning water quality discharge permits (known as National Pollutant Discharge Elimination System permits) on bond forfeiture sites will allow WVDEP to make a more accurate prediction of the Fund's long term needs.
- **National Priority Review - Approximate Original Contour:** In December 2010, OSM and WVDEP published the results of the study evaluating the procedures and policies for backfilling and grading mined sites to their approximate original contour in non-steep slope areas. The study complemented a May 2010 study involving regrading steep slope areas, and both studies indicate that WVDEP was following the proper procedure for approximate original contour when issuing the permits. There was a lingering issue involving the operators compliance with the regrading proposed in the permit, but OSM's inspections have verified that WVDEP has addressed that issue as proposed. The reviews show that WVDEP has addressed all issues with the topic, and the intent and definition of approximate original contour in West Virginia has been met. OSM will continue to pay close attention to compliance with approximate original contour but will no longer carry the subject as an unresolved issue.

Other State Specific Oversight/Topic Reviews

In addition to those listed as a national topic, the following oversight studies and reports were completed during this evaluation year and the complete reports can be found at <http://www.arcc.osmre.gov/FOs/CHFO/WV/wvoversight.shtm> on Charleston Field Office's webpage. The Annual Evaluation Report summarizes the results of these studies.

Evaluation Summary of Oversight Inspections: A total of 459 inspections were conducted by OSM. Two hundred sixty four violations of the State Program were observed on 108 of the 459 inspections. This shows that violations of the State Program were observed on 23.5% of the inspections.

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Below is a summary of the actions for the OSM-observed violations as of June 30, 2011:

- 54 of the violations had been previously cited by the WVDEP;
- 140 violations were cited by WVDEP at the time of the OSM inspection;
- 39 violations were considered appropriately resolved in State responses to OSM Ten-Day-Notices;
- 24 violations were pending a final response from WVDEP to the OSM issued Ten Day Notices;
- 7 violations are pending OSM's review of the State response to the Ten Day Notice.

In January 2011, OSM clarified its ability to use the Ten Day Notice process to address permit defects as well as violations that already have an on-the-ground impact. In West Virginia, OSM has issued three Ten Day Notices that involved permit defects. One Ten Day Notice resulted in the State ordering a surface mine to include a nearby slurry dam in its blasting plan. Another resulted in the WVDEP and a company deciding that the operation could not continue a refuse removal remaining project after OSM identified several permitting problems, including the fact that the proposed runoff control for the site involved directing polluted water into an underground mine that was already completely full of water and likely discharging to a nearby creek. The third permit defect Ten Day Notice related to a citizen complaint, alleging seven violations. The State's response is still under review. Inspection results were also included in the topical studies discussed below.

- **Keyford Mountain and Snap Creek 1 (S-5019-96) Root Cause Analysis of Flooding:** In these site specific studies, OSM concluded mining did cause significant offsite damage during a rainstorm and identified problems with the storm water runoff analysis. The results were also considered in the general oversight report on the surface water runoff analysis.
- **Storm Water Runoff Analysis:** This study was conducted as a followup to a previous study and the conclusions were basically the same. OSM finds this West Virginia specific regulatory requirement has made improvements in storm control in the field but occasional deficiencies still contribute to significant offsite damage. OSM investigated eight offsite impacts that occurred after a storm event and found that five of the eight problems were related to operator errors, but three events had significant impacts related to the Storm Water Runoff Analysis (SWROA) process. WVDEP is taking action and intends to address OSM's concerns within the next six months by making improvements in the SWROA application, certification and revision process, as well as conducting and documenting random reviews of operations after storm events. WVDEP will also conduct in-house and industry training to accomplish the above mentioned tasks and will train WVDEP inspection and enforcement staff to ensure that site

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inspections include review of monitoring plans and indicators related to SWROA effectiveness, such as stream scour, sedimentation and boulder movements.

- **Stream Assessment of Trend Station 071:** In 2002, as part of an effort to improve West Virginia's assessment of cumulative hydrologic impacts, OSM and West Virginia established 236 trend stations in streams in the coal mining region. WVDEP has maintained routine monitoring at those sites. OSM has initiated a review of some of those stations to begin to assess the overall impacts of mining. The first project finished by OSM is Trend Station 071 (West Fork of Pond Fork). This study shows there may be some impacts that are influenced by underground mines and other possible causes that bear further review as more mining is proposed in this watershed.

Numerous oversight studies have been initiated in previous years and carried over to this year. The following is a list of topics under review for which a final report has not been completed. These topics are discussed in this year's report, providing a current status of the study.

- Slurry Impoundment Basin Breakthrough Potential
- Liability Insurance Review
- Reclamation of Sites with Third Party Liabilities
- Inspection Frequency of Bond Forfeiture Sites
- Acid Mine Drainage Inventory of Active Permits
- State Staffing Comparison
- Grant Reimbursement Rate for Bond Forfeiture Staff
- Dam Compaction Study
- Stream Trend Assessment

Program Maintenance

In addition, the annual evaluation report also discusses the status of amendments to the West Virginia Program. WVDEP has no outstanding required program amendments, but six statutory or regulatory revisions to the State Act or Regulations are pending or under review.

Litigation

OSM is directly involved in two current lawsuits.

- Ohio Valley Environmental Coalition, Inc., et al. v. Secretary Salazar, Department of Interior (Civil Action No. 3:09-0149 and 11-1049) concerning OSM's decision to approve the addition of the State's definition of material damage to the

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hydrologic balance and the deletion of the State's definition of cumulative impact. As discussed in the report, briefs were filed in June 2011 in the 4th Circuit Court.

- West Virginia Highlands Conservancy v. Secretary Ken Salazar and West Virginia Coal Association, Department of Interior, (Civil Action No. 2:00-cv-1062). The Plaintiff has made a motion to reopen the case concerning the solvency of West Virginia's alternative bonding system. On July 14, 2011, the Court ordered that a status conference be held in August 2011 to discuss the case.

WVDEP is directly involved in one lawsuit involving water quality at bond forfeiture sites.

- West Virginia Highlands Conservancy, et al. v. WVDEP Civil Action No 2:07-cv-00410 and 1:07-cv-00087-IMK. On November 8, 2010, the Court of Appeals affirmed the previously issued Northern District Court's ruling that requires WVDEP to improve the treatment of acid mine drainage and also affirmed that WVDEP must obtain National Pollutant Discharge Elimination System permits. At the end of this reporting period, the parties are in negotiation concerning the development of applications for water discharges at bond forfeiture sites in the State.

OSM is also monitoring seven cases involving litigation between environmental groups and various permittees involving the Surface Mining Control and Reclamation Act or the Clean Water Act. The litigation may be relevant as OSM initiates its planned oversight on the adequacy of the surface mining permit to prevent water quality problems.

Regulatory Program Problems and Issues

Action Plans

In January 2011, OSM issued a national directive (REG-23) which formalized a procedure for resolving issues found during oversight that take longer than six months to resolve and which could indicate a failure of a State to properly administer all or part of its program. In this report, OSM covers those issues that rise to the level of requiring an action plan under Directive REG-23, but it also covers issues that are less significant and do not indicate a current failure of the program. Each topical study will identify that distinction. At this writing, OSM oversight has identified one area requiring an action plan:

- **Acid Mine Drainage Prediction for Underground Mining and Expansions:** A previous study found that information could be used more consistently by permit reviewers to predict, prevent or address acid mine drainage. While the study that caused this to become an issue was narrow in scope, WVDEP and OSM have had other discussions on hydrologic impacts from underground mining,

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such as stream loss or undesired artesian discharges, that are also related to the adequacy of information and predictions of deep mining impacts. OSM and WVDEP have initiated discussions on a potential Action Plan on underground mine hydrology, but details and time frames have not been developed at this writing. OSM and WVDEP have concurred on the outline for a guidance and training manual to address many of the issues.

Enhancement Activities

The annual report also lists areas where OSM finds that the State could improve its program but the issues do not rise to the level of a program deficiency, or the issues are expected to be resolved within 180 days. These include:

- Inventory of Active Permits with Acid Mine Drainage
- Water Supply Replacement
- State Staffing
- Incidental Boundary Revisions
- Storm Water Runoff Analysis

Some studies and reports are still under development and final conclusions and results have not been determined. The need for an action plan has not yet been determined on the following studies:

- Special Reclamation of Sites with Third Party Liabilities
- Slurry Impoundment Basin Breakthrough Potential

Resolved Issues from Previous Reports

- **Approximate Original Contour:** In May 2010, OSM published an oversight report indicating field conditions did not always match permit plans for backfilling and grading on steep slopes. Although REG-23 was not formalized at that time, WVDEP agreed to a plan whereby they increased emphasis on engineering certifications of the mined area. Based on oversight inspections, OSM finds that the WVDEP is correcting the situation. OSM will continue to emphasize a review of grading requirements as part of its inspection process, but considers the findings on approximate original contour resolved.

Technical Assistance Provided

- **Underground Mine Monitoring:** Technical Guidance Manual: OSM is assisting the WVDEP with the preparation of a Guidance Manual to promote consistency and efficiency in the preparation and review of the hydrologic portions of underground mine permit information.

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- **Underground Mine Pool Research:** The water level and quality of the Fairmont mine pool continues to be monitored. An additional study is in the early stages to evaluate the geochemistry of the mine roof strata and the recharge water in underground workings of the Upper Freeport and Pittsburgh seams in Northern West Virginia.
- **Lexington Coal Company/Appalachian Fuels:** OSM continues to work with WVDEP to ensure reclamation on a number of permits affected by bankruptcies.
- **Snap Creek Mining 2 (S-5006-04) Flooding Evaluation:** OSM provided technical assistance to the WVDEP to determine the cause of flooding that adversely impacted the town of Man, West Virginia, including testimony during the West Virginia Surface Mine Board hearing involving the incident.
- **Interagency Permit Coordination:** WVDEP has hosted, and OSM has participated, in all of the monthly meetings to discuss pending permits and requirements with the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency. This includes ongoing efforts to build models for determining hydrologic impacts.

Grant Information

- **Regulatory Grant Information:** The performance period runs from January 1, 2010, through December 31, 2011. These funds are used by WVDEP to administer its approved surface mining regulatory program. States are required to provide 50 percent matching funds to support their regulatory programs. The State's total regulatory program costs about \$24 million annually. In addition, during the review period, OSM awarded the State an OSM Regulatory Intern Cooperative Agreement in the amount of \$17,000 to hire at least three interns. An amendment is pending to increase the award by \$51,000 so they can hire six additional interns. The intern program will run through December 31, 2011. The interns assist WVDEP with special projects and data management.
- **Abandoned Mine Land Grant Information:** The 2011 Abandoned Mine Land Grant performance period is from January 1, 2011, to December 31, 2013. Funding in the amount of \$51,355,533.53 was awarded to the WVDEP to reclaim high priority abandoned mine land problems, provide potable water to areas where water supplies were adversely affected by pre-law mining, and address acid mine drainage problems. An additional \$3,000,000.00 was added during the year for a total of \$54,355,533.53. Because the grants are awarded for a three year time frame, some funding is also provided in the 2009 and 2010 Abandoned Mine Land Grants to complete work this evaluation year.

II. Abandoned Mine Land Reclamation

Accomplishments

The abandoned mine land program in West Virginia had a very busy and successful year, beginning and completing more projects this year than in any previous time in recent years. Major accomplishments for the program include:

- **Modernization of their Abandoned Mine Land Inventory:** Work is on-going to migrate the existing auto-cad map inventory to a geospatial inventory.
- **Waterline Projects:** WVDEP has eliminated the application backlog for waterline assistance and is initiating feasibility studies when applications are submitted. Thirteen feasibility studies were conducted this year. Six new waterline projects were awarded, and at one point in the evaluation year, WVDEP had 17 waterline projects under construction with funding commitment in excess of \$43 million.
- **WebAML:** The new information database and management system became a reality in April 2010 and continues to be upgraded and improved to provide access to more data and programs. Web access, allowing OSM access to the system outside the WVDEP network, was a significant accomplishment.
- **Abandoned Mine Land Reclamation:** WVDEP initiated more project designs this year than in previous years, awarding design contracts for 46 projects and initiating 14 in-house designs. In addition, 64 designs were completed, 44 construction contracts were awarded, and 47 construction contracts were completed.
- **Acid Mine Drainage Abatement and Treatment Fund:** WVDEP placed \$6,000,000 in the acid mine drainage abatement and treatment fund. To date, WVDEP has set-aside \$32,308,619 for acid mine drainage treatment. This year, WVDEP completed construction on two pilot projects utilizing in-stream dosing. Initial water quality sampling has shown promising results, but problems have been encountered in addressing variations in seasonal flow, thus monitoring and maintenance of the sites is needed. WVDEP has committed to monitoring these projects.
- **Emergency Program:** WVDEP investigated 260 complaints, resulting in the declaration of 34 emergency projects. Minor changes were made to the process of declaring and authorizing emergencies based on the OSM funding changes.

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Oversight Topical Studies

In addition to general project inspection, the following Enhancement and Performance Reviews were conducted to evaluate the success of the abandoned mine land program.

- **Staffing Analysis:** A study was conducted to determine how the WVDEP Office of Abandoned Mine Land and Reclamation staffing levels and program accomplishments have changed with the increase in funding as a result of the 2006 reauthorization of the abandoned mine land program. The study found that WVDEP staffing levels have remained constant, although both funding and project activity have greatly increased. The study also found that staffing levels are lower than many surrounding states, although funding is higher.
- **Root Cause Analysis of Putney (Blue Creek) Dewatering:** A fish kill occurred during the dewatering of an underground mine pool by a contractor working for WVDEP. The review found that the combination of the high volume and poor quality of the water discharging from the underground mine workings, in addition to the low flows of the receiving stream during the summer's dry period resulted in the adverse impacts to the aquatic life and stream degradation. WVDEP has taken action to reduce the likelihood of similar events from occurring in the future, including changes in personnel and policy that should result in better coordination between staff members and improved identification of potential problems.

Action Items

As a result of oversight inspections and the performance and enhancement reviews, OSM is concerned about the staffing levels of the abandoned mine land program. Problems were also identified during the Putney (Blue Creek) Dewatering Study concerning project inspection and field supervision, especially project documentation. OSM intends to increase oversight of the abandoned mine land program to monitor the situation.

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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 (DOI). SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for the state and tribal Regulatory and Abandoned Mine Lands (AML) programs that have been approved by the Secretary of the Interior as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the West Virginia program and the effectiveness of the West Virginia program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers Evaluation Year (EY) 2011, which includes the period of July 1, 2010, to June 30, 2011. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSM Charleston Field Office (CHFO), 1027 Virginia Street, East, Charleston, West Virginia 25301, telephone (304) 347-7158, or by email at CHFO@osmre.gov, and can also be found on our web site at <http://www.arcc.osmre.gov/FOs/CHFO/CHFO.shtm>.

The following acronyms are used in this report:

A&E	Administration and Enforcement
ABS	Alternative Bonding System
ACE	U.S. Army Corps of Engineers
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Office of Abandoned Mine Lands and Reclamation
AOC	Approximate Original Contour
ARRI	Appalachian Regional Reforestation Initiative
ATP	Authorization to Proceed
CHFO	Charleston Field Office
CHIA	Cumulative Hydrologic Impact Assessment
CSR	Code of State Regulations
CWA	Clean Water Act
DOI	U. S. Department of Interior
DOJ	U.S. Department of Justice
EPA	U.S. Environmental Protection Agency
EY	Evaluation Year
FAM	Federal Assistance Manual
FBR	Fluidized Bed Reactor
FR	Federal Register
FRA	Forestry Reclamation Approach
FTE	Full-time Equivalent
GIS	Geographic Information System

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IBR	Incidental Boundary Revisions
MBBR	Moving Bed Biological Reactor
MCEDA	McDowell County Economic Development Authority
MOA	Memorandum of Agreement
NOI	Notice of Intent to Sue
NPDES	National Pollutant Discharge Elimination System
NTTP	National Technical Training Program
OSM	Office of Surface Mining Reclamation and Enforcement
OSR	(WVDEP) Office of Special Reclamation
OVEC	Ohio Valley Environmental Coalition
PAD	Problem Area Description
PMLU	Postmining Land Use
SMCRA	Surface Mining Control and Reclamation Act of 1977
SWROA	Storm Water Runoff Analysis
TDN	Ten-Day Notice
TDS	Total Dissolved Solids
TIPS	Technical Information Processing System
WSSAC	Water Supply Systems Advisory Committee
WVCA	West Virginia Coal Association
WVDEP	West Virginia Department of Environmental Protection
WVDMR	West Virginia Division of Mining and Reclamation
WVHC	West Virginia Highlands Conservancy
WVSCI	West Virginia Stream Condition Index
WVSCMRA	West Virginia Surface Coal Mining and Reclamation Act

II. Overview of the Coal Mining Industry in the State of West Virginia

Coal has been mined in West Virginia using underground methods since the early 1700's. Underground mining increased throughout the 1800's and into the 1950's. Surface mining began around 1916, but significant production from surface mining did not occur until World War II.

Mining activities occurring before passage of the Surface Mining Control and Reclamation Act (SMCRA) in 1977 resulted in many unreclaimed or under reclaimed areas within the State, given that some reclamation standards were less stringent than SMCRA. Currently, there are 4,150 problem sites listed in the Abandoned Mine Land Inventory System (AMLIS) for West Virginia. Six percent of them are funded, 55 percent are unfunded, and 39 percent have been completed through the State's Abandoned Mine Land Reclamation (AMLR) Program.

West Virginia's demonstrated coal reserve base totals 31.9 billion tons, and its estimated recoverable reserves total 17.4 billion tons. The State's estimated recoverable coal reserves at producing mines totaled 1.7 billion tons in 2009. West Virginia ranks fourth in

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the country in demonstrated coal reserves and second in recoverable coal reserves at producing mines. Coal occurs in all but two of the State's 55 counties. Mineable seams occur in 43 of the 55 counties. Of the 117 identified coal seams in the State, 65 seams are mineable using current technology.

West Virginia's coal production accounts for about 13 percent of the Nation's total coal production. In 2010, West Virginia produced 143.3 million tons of coal, allowing it to retain its ranking as the second largest coal producing State (see Table 1, Appendix 1 for coal production based on sales). Coal was produced from 51 different seams. The Pittsburgh, Stockton-Lewiston, Coalburg, Eagle, Lower Kittanning, Alma, Clarion, Upper Kittanning, and Powellton coal seams accounted for about 70 percent of the State's total coal production. During 2010, coal was produced in 29 counties in West Virginia. The top eight coal producing counties in 2010 by production were: Boone, Marshall, Logan, Kanawha, Mingo, Marion, Raleigh, and Monongalia Counties. These counties produced 73 percent of the State's total coal production. The State's producing mines had an average coal recovery rate of 57.31 percent.

West Virginia leads the Nation in underground coal production. Underground mines produce approximately 65 percent of the State's total coal production. In 2010, there were 39 longwall mines operating in the country. Longwall mining activities occurred in 11 States. With 12 longwall mines, West Virginia had more longwall mining operations than any other State in 2010. Longwall mining operations accounted for 42 percent of the State's underground coal production and 27 percent of the State's total coal production in 2010. Longwall coal production in the State increased by 17 percent in 2010. The continuous mining method still accounts for most of the State's underground coal production.

Contour, area, auger, mountaintop, and highwall mining operations are the most common methods of surface mining in the State. Thirty-five percent of the coal produced in West Virginia is by surface mining methods. During 2010, surface coal production decreased by about 11 percent, and underground coal production increased by about 6 percent.

West Virginia has 2,112 inspectable units that include 1,480 active mines, 341 inactive mines, and 291 bond forfeiture sites. The average number of acres per inspectable unit is 167 acres. Surface mines average 349 acres per unit, whereas underground mines average 41 acres of surface disturbance per unit. The number of new permits issued annually by the State has declined. West Virginia does not count the area above the underground works in its permitted acreage. Approximately 70 percent of the State's permits are active and require monthly inspections by the West Virginia Department of Environmental Protection (WVDEP). Underground mines account for about 38 percent of the total inspectable units and surface mines account for 37 percent. The remaining 25 percent consists of other facilities, such as preparation plants, coal refuse piles, loading facilities, and haulroads.

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Approximately 83 percent of the coal produced in West Virginia is used domestically, with 21 percent of that coal being consumed within the State. Most coal produced in West Virginia is used to generate electricity. Eighty seven percent of the State's domestic coal production is used by electric utilities in 21 states, including West Virginia. Coal produces 98 percent of the electricity generated in State. Approximately 9.4 percent of the State's domestic coal production is used by coke plants and the remaining 3.6 percent is for industrial, commercial and residential use. North Carolina, Ohio, Pennsylvania, Florida, Maryland, Indiana, Michigan, and Kentucky import 65 percent of West Virginia's domestic coal production. Fifty one per cent of the State's coal production is transported by railroad, 25.6 percent is transported by water, and the remainder by truck, conveyor, or is stockpiled.

In 2009, the price of coal produced in the State averaged about \$64 per ton. The price of underground mined coal averaged \$65 per ton in 2009, and the price of surface mined coal averaged about \$61 per ton during the same period. The average price of West Virginia coal in 2009 increased by 6 percent over that paid in 2008. Coal in Wyoming during the same period averaged \$12.41 per ton.

West Virginia exports approximately 17 percent of the coal it produces. West Virginia was the Nation's leading coal exporter with about 38 percent of the country's foreign exports. Historically, Canada, Italy, France, Netherlands and Brazil have been the leading importers of West Virginia coal. Metallurgical coal has historically comprised about 90 percent of West Virginia's coal exports to foreign countries, and steam coal makes up the rest. Approximately 52 percent of the Nation's metallurgical coal exports come from West Virginia. The Nation's foreign coal exports increased by 38 percent in 2010. Canada, Brazil, Netherlands, United Kingdom, and France were the largest importers of coal from the United States in 2010. Coal exports averaged about \$120 per short ton in 2010. Steam coal exports averaged \$65 per short ton in 2010, and metallurgical coal exports averaged \$139 per short ton. Ninety-two percent of the coal imports into the country in 2010 came from Colombia, Indonesia and Canada and cost an average of \$72 per short ton.

About 220 companies produce coal in West Virginia. Due to increased mechanization and consolidation in the mining industry, more than 10,000 mining jobs have been lost in the State since 1990. Most of the decline in employment in the past has been at underground mines. Coal employment declined slightly in 2010. During 2010, the State's coal mining industry directly employed 20,371 people with a payroll of more than \$1.5 billion. Total employment, including independent contractors, is about 52,000 employees. Seventy two percent of the miners in the State work in underground mines. Coal mining operations in Boone, Logan, Kanawha, Raleigh, Mingo, Marshall, and Monongalia Counties employ 63 percent of the miners in the State. The average coal miner in the State earns about \$70,000 annually. Mountaintop mining operations employ 54 percent of the miners who work in the State's surface mines. Surface mine employment declined by about 7 percent in 2010. Union representation in the State declined slightly in 2009. Unions now represent

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25 percent of the miners in the State, and the remaining miners are non-union. In 2009, 30 percent of the State's underground miners and 15 percent of the State's surface miners belonged to unions. West Virginia's miners produced an average of 2.9 tons of coal per miner per hour in 2009. Estimates are that the State's coal industry generates approximately 80,000 additional coal-related jobs.

Coal mining accounts for nearly 9 percent of the Gross State Product, a measure of the total value of all goods and services produced in the State. The State's severance tax rate is 5 percent of the gross value of coal production. West Virginia's coal industry pays about \$400 million annually in severance taxes to State and local governments. The coal industry accounts for nearly 27 percent of the State's business tax and approximately 10 percent of the statewide property tax collections. Overall, it is estimated that every \$1 billion worth of coal production generates \$3.5 billion throughout the State's economy.

Data Sources: West Virginia Office of Miners' Health, Safety and Training; West Virginia Department of Environmental Protection; West Virginia State Tax Department; U.S. Department of Energy, Energy Information Administration; National Institute for Occupational Safety and Health; and Office of Surface Mining Reclamation and Enforcement, U.S. Department of the Interior.

III. Overview of the Public Participation and Outreach Efforts

During the evaluation year, the CHFO took the following steps to facilitate public participation in the SMCRA program:

- Sent letters to citizens and groups advising the annual report was available and offering to meet with groups at any time, even after business hours, to discuss SMCRA issues;
- Requested public participation in the State program amendment process through *Federal Register* (FR) announcements and federal and state agency notification letters;
- Posted the complete text of detailed oversight reports on the CHFO website as the reports were completed. The CHFO web site was modified this year to include a "State" specific page that contains relevant information about Oversight of the West Virginia Program. The site is accessible at <http://www.arcc.osmre.gov/FOs/CHFO/WV/wvoversight.shtm>;
- Posted West Virginia Annual Reports on OSM's website upon completion;
- Hosted informational booths at public events sponsored by watershed groups;

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- Met with individuals from special interest groups to discuss oversight topics;
- Participated in numerous meetings with non-profit organizations working on watershed issues;
- Participated in several Arbor Day celebrations;
- Participated and made presentations at several forums open to the public, such as the West Virginia Mine Drainage Symposium, the Eastern Coal Region Roundtable Conference, the Appalachian Region Reforestation Initiative Workshop, and several others;
- Responded to Congressional inquiries submitted on behalf of constituents;
- Provided information on numerous occasions on SMCRA programs to students;
- Routinely participated in discussions with the Special Reclamation Fund Advisory Council that represents multiple interests;
- Routinely interacted with the State's Permitting Quality Assurance Quality Control Panel that represents multiple interests; and
- Routinely interacted with citizens who called or wrote seeking information about abandoned mine land or surface coal mining and reclamation activities or requirements.

To measure the State's success in meeting the environmental protection goals of SMCRA, OSM and the WVDEP have cooperatively developed Regulatory and AML Performance Agreements. The Agreements focus on measuring the on-the-ground success of the approved program and identifying the need for financial, technical, and other program assistance during the evaluation year. The Agreements contain the basic framework for oversight activities for a two year period. During this evaluation year, both Agreements were revised regarding oversight activities and the time period was adjusted to cover the period starting July 1, 2011, and ending on June 30, 2013. In developing the Performance Agreements, OSM solicited input from the public and other state and federal agencies to identify program areas to evaluate during the upcoming evaluation year. These Agreements are available to the public at the web address provided above.

West Virginia's approved regulatory program provides many additional opportunities for public participation. Through its rulemaking process, the WVDEP routinely notifies and solicits comments from the public on all proposed revisions to its rules. In the permitting process, the State requires the applicant to advertise each application for a new or revised permit and must provide interested citizens the opportunity to comment. Citizens may

request that the WVDEP hold an informal conference to discuss the application before making a decision to issue or deny the permit. A similar process also applies to completed surface mining and reclamation operations at the time of bond release. Filing written citizen complaints concerning specific issues also gives citizens the opportunity to participate in the inspection and enforcement process at particular mine sites. They may also seek administrative review of WVDEP decisions by the West Virginia Surface Mine Board and judicial review through the State court system.

IV. Major Accomplishments and Innovations

- During the evaluation year, two Memorandum of Understandings and two OSM Regulatory Intern Program Cooperative Agreements were executed to provide WVDEP funding to hire 17 regulatory interns through the Governor’s Internship Program. Twelve of the interns were used to convert quarterly water monitoring data, in-stream data, and baseline water quality data into a format that could be uploaded into the State’s electronic database. The five other interns were used to update the State’s database to include information from existing permit files regarding pre and post mining land uses, method of mining, variances, etc.
- The WVDEP Office of Special Reclamation has converted many of their lime dosing systems (used for acid mine drainage treatment) to hydrated lime rather than pebble lime. Hydrated lime, although slightly more expensive than pebble lime (\$20/truck load), dissolves more readily, resulting in reduced amounts of undissolved lime that accumulates in the initial settling pond. This conversion has increased treatment efficiencies by being more chemically efficient and has decreased sludge pumping frequencies, thereby decreasing pumping costs.
- OSM’s oversight of the bond forfeiture program and the State’s reporting to its Special Reclamation Fund Advisory Council continues to show significant progress toward eliminating the backlog and time delays in reclamation.
- On June 14, 2011, WVDEP hosted a meeting with all the various researchers and regulatory agencies involved in underground mine pools in West Virginia to assist in future decisions on further research and minimize duplication of efforts.

V. Success in Achieving the Purposes of SMCRA

A. Off-Site Impacts – Root Cause Analysis

OSM conducted an evaluation of the State’s database for all West Virginia inspectable units to determine the effectiveness of the State program in protecting the environment and the

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public from off-site impacts resulting from surface coal mining and reclamation operations. The evaluation revealed that 87% of the State's 1,870 non-forfeited inspectable units (including 49 Phase III bond released permits), were off-site impact free and 86% of the State's bond forfeiture sites were off-site impact free. The percentage of sites free of off-site impacts in 2011 is 5% less than last year's numbers (91% in 2010), but this reduction is due to improvements in the State's reporting of off-site impacts and changes in the way OSM counted violations from WVDEP records rather than an actual increase in off-site impact violations.

During this evaluation period, the State conducted 20,485 inspections on non-forfeited sites and issued 920 enforcement actions. Of these enforcement actions, 431 off-site impacts were found on 251 permits. In comparison to last year's 162 impacts on 111 permits, the number of off-site impacts has increased by 60%, and the number of permits with off-site impacts has increased by 126%. Most of the off-site impacts (58%) were categorized as moderate. The figures representing resources affected, degree of impact, and type of impact can be found on Table 5.

Hydrology, representing 62% of the type of impact affected this year, still remains the most common type of impact by the mining operations. This category has increased from last year's 58%.

OSM conducted a review during Evaluation Year 2010 of the State's data in assessing how many permitted sites within the State are free of offsite impacts. This review demonstrated that the existing process, and the associated State automated program for reporting offsite impacts and the degree of impacts, likely caused an underreporting of offsite impacts and skewed the degree of seriousness of those impacts downward. OSM worked with WVDEP to improve the way off-site impacts are reported and captured during EY 2011.

The State's OSR conducted an off-site impact evaluation of the forfeited sites. During this period of review, eight permits were forfeited and these sites were added to the inventory. Two of these sites had an off-site impact relating to hydrology. The degree of impact for one of these new sites was minor and the other was considered a moderate impact. The State completed land reclamation on 23 bond forfeiture sites during the review period. They also installed two active and one passive acid mine drainage (AMD) treatment systems which abated two off-site impacts related to hydrology. In addition to the 23 sites where reclamation was completed during the evaluation year, six more active or passive water treatment sites are currently under construction.

The OSR continues to maintain the inventory of the State's forfeited sites and is responsible for the reclamation of these sites. The off-site impacts on these sites have remained at 45. Of the 45 off-site impacts, 43 are related to water quality problems.

OSM does not count sites where water treatment is occurring as an off-site impact. OSM will re-evaluate this position pending the outcome of litigation as to what water quality standards should apply to these sites, as discussed in Section VI.T.(2) Litigation Against WVDEP. The oversight report discussing Off-Site Impacts is available on OSM's web site at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

B. Reclamation Success

The success of the State program in ensuring reclamation success can be based on the number of acres that meet State bond release standards, including postmining land use (PMLU), and have had their performance bond released by the WVDEP. State reclamation bonds are released in three phases. Phase I bond release indicates that the land contour has been returned to its approximate original contour (AOC) or an approved variance. The Phase II release verifies that the vegetative cover or other erosion control measures have adequately stabilized the surface from erosion and the soil resources are adequate to support that cover. In addition, the site is not contributing suspended solids to stream flow or runoff outside the permit area. Finally, Phase III, or final bond release, confirms that the mine site is fully reclaimed and the approved PMLU has been achieved. Complete restoration of land and water resources affected by mining is demonstrated by this release.



Forestland Post Mining Land Use

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During the evaluation year, WVDEP granted 56 Phase III bond releases (47 permits and nine areas where Phase III incremental bonds were released) totaling 5,318 acres. There were 15 Phase I and 24 Phase II bond releases during the year that totaled 2,123 and 2,948 acres respectively. The information on the bond releases for this evaluation period was obtained from the WVDEP Environmental Resources Information System database.

The State's OSR completed land reclamation on 23 bond forfeiture permits and installed active or passive water treatment systems on three permits. In addition to the permits where land and water reclamation was completed during the evaluation year, the OSR issued reclamation contracts on 13 additional permits for land reclamation. The OSR continues to maintain an inventory of the State's bond forfeiture sites, and oversees the reclamation of these sites. The complete Reclamation Success Report can be found on the CHFO website at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

C. Customer Service – Public Participation – Bond Release

OSM conducted a review of the public notification process concerning bond release applications to evaluate the effectiveness of customer service provided by the West Virginia Division of Mining and Reclamation (WVDMR), randomly selecting 18 bond release requests to review. Customers, landowners, public entities and residents are required to be notified of any bond release applications submitted to WVDMR for approval. Each bond release was evaluated to determine if all of the landowners, adjacent landowners, local governmental bodies, planning agencies, and water companies in the locality of the permit had been notified of the bond release by the operator. These bond release applications were also reviewed to verify that an advertisement had been submitted to the newspaper of general circulation in the locality of the permit and the timeframe of each step of the bond release application process. The majority of this review was completed by searching the WVDMR online bond release files and through correspondence with WVDMR bond release staff.

The review found the State was following its program with some suggestions for minor improvements but that the State needed to change its procedures to assure the public had immediate access to application material during the official public comment period. The review found the public comment period was frequently closed by the time the application for bond release was submitted to the WVDEP. WVDEP has agreed to change its form and procedures to ensure the application is on hand for review at the time public advertisements are initiated. The Customer Service Oversight Report can also be found on the CHFO website at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

VI. National Priority and General Oversight Topic Reviews

A. State Bond Calculations – A National Priority Review

This study was done as part of a national priority review mandated by OSM to determine the adequacy of State bond calculations in establishing bond amounts held by States for reclaiming coal mining operations. Bond forfeiture sites were included in this review to determine in a more practical sense whether the forfeited funds were sufficient to return the sites to useful postmining conditions and address all environmental and safety concerns.

Because West Virginia has an alternative bonding system (ABS) that relies on a pool of funds to supplement individual bonds in the event of forfeiture, OSM determined that the best way to evaluate the success of that system was to look at the cost, timeliness, and effectiveness of bond forfeiture reclamation. A summary of the report is set forth below, but a copy of the entire report can be found on CHFO's webpage at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

Significant findings from the report include the following:

- The study found West Virginia has made acceptable progress in eliminating the backlog of required reclamation that was a serious program problem in 2001. The data revealed that State reclamation efforts have increased considerably since 2004 and, except for a one-time significant increase in bond forfeiture sites due to the bankruptcy of one company in 2006, the State may have been able to eliminate its backlog of 2001 legacy sites by now. In addition, the State, in cooperation with OSM, has spent considerable time and effort in evaluating past bond forfeiture sites and ensuring that the reclamation, including water treatment, at those sites is adequate and complete.
- The review also found the State has made significant progress in initiating long-term water treatment at all bond forfeiture sites where required and is now treating at 121 sites and investigating others. In 2001, the WVDEP did not always include water treatment in its reclamation activities. OSM did not judge the adequacy of water treatment facilities due to ongoing permitting discussions between the WVDEP and the U.S. Environmental Protection Agency (EPA) as to what standards will be applied to bond forfeiture sites. Because of the litigation discussed in Subsection VI.T, the WVDEP has committed to obtaining National Pollutant Discharge Elimination System (NPDES) permits at bond forfeiture sites, but the water quality standards to be measured was unknown at the time of the oversight review.

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- A 2009 actuarial report showed the State's ABS will remain solvent until around 2038, but then it will go into the red largely because of water treatment. This is because water treatment is a perpetual cost for each site where it occurs, and it has a cumulative effect from year to year. West Virginia has recognized this and created a separate Special Reclamation Water Trust Fund that is receiving a tax of about 1.5 cents for each ton of coal mined in the State. However, this tax is included in the State's actuarial projections, so it is not yet a satisfactory solution for dealing with continuing water treatment costs.
- As a result of the evaluation of five bond forfeiture sites, OSM found the State is generally following the permit in completing bond forfeiture reclamation plans. OSM did note that one of the sites had problems with tree survival. Also, the State measures the success of herbaceous vegetation visually, whereas active operators are required to use more precise statistical techniques, such as cutting and weighing, to demonstrate productivity. OSM did not observe any problems with erosion or stability and there were no citizen complaints, but vegetative success might be a topic for another oversight study in the future.
- Finally, the study found the collection of the site-specific bond could be improved by the State. OSM will consider future oversight of this area if it has an adverse impact on reclamation timeliness.

B. Approximate Original Contour – A National Priority Review

This report was completed according to the National Priority Review for all States regarding approximate original contour (AOC). It relies in part on a report (referenced as the 2008-09 study) published in May 2010 and summarized in last year's annual report, relating to mining in steep slopes. The review also included new information gathered for a contour mine and an area mine in non-steep slope areas. As reported in the 2010 annual evaluation report, OSM and the WVDEP began, but did not complete, the AOC study of mining in non-steep slope areas during 2010. However, that study and report were completed during this evaluation year and a summary of the findings is being provided here. Reports regarding these AOC studies are available on OSM's web site at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

The purpose of the 2008-09 study was to verify that the changes agreed upon in a prior study (1999) were still being implemented. The 1999 study found that the State was not differentiating between AOC and AOC variances in its permitting requirements and was allowing inappropriate post mining land uses as justification for AOC variances. The 1999 OSM report included action items to address all deficiencies and the CHFO found that all items were successfully completed by 2006. The 2008-2009 review was limited to mining sites in steep slope areas removing the entire coal seam across a mountain or hill (a.k.a. mountaintop mining). OSM found that the State was continuing to follow proper

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procedures for issuing permits as agreed upon in the action items from the 1999 study. However, OSM found operators were not always closely following the proposed permitted land form in the actual backfilling and grading. To address this finding, WVDEP agreed to require the operators to more carefully document how backfilling and grading plans follow the permit as part of the engineering certification process every six months. OSM then included these AOC certifications as an emphasis area for its oversight inspections, and thus far, finds that the State is requiring operators to follow their permit.

The study, published in December 2010, (referenced as the 2010 study), included a review of the 2008-09 study after inclusion of the WVDEP's new action plan and evaluation of two additional permits in non-steep slope areas. The focus of the review of the additional sites was:

- AOC interpretation and permitting documentation;
- Process for on the ground AOC verification; and
- Field verification that backfilling and grading are following the approved plan.

The 2010 study found that the WVDEP is appropriately enforcing regulations governing AOC as applied to mines in non-steep slope areas. Although State policy governing AOC in non-steep slope areas is less defined than that of steep slope areas, the results of this study indicate that AOC is being achieved.

C. Oversight Inspections

OSM conducted 459 inspections this year and identified 264 violations on 108 (approximately 23%) of the 459 inspections. Actions as of June 30, 2011, are summarized below:

- 54 of the violations had been previously cited by WVDEP.
- 140 violations were cited by WVDEP at the time of the OSM inspection.
- 39 violations were considered appropriately resolved in State responses to OSM Ten-Day-Notices (TDN).
- 24 violations were pending a final response from WVDEP to OSM issued TDNs.
- 7 violations are pending OSMs review of the State response to the TDN.

OSM groups violations by major categories and “hydrologic balance” with 100 violations was the category with by far the most number of violations. This includes everything from improperly constructed sediment structures to failure to submit ground water monitoring reports. OSM will continue to emphasize review of these type issues in its inspection process. A copy of the entire Oversight Inspection Summary Report can be found on CHFO's webpage at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

In EY 2011, special emphasis was also placed on compliance with AOC configuration as described in the permit for steep slope areas subject to the State's AOC+ policy and on slurry impoundment dams. OSM found the State was emphasizing compliance with the backfilling and grading for AOC. OSM observed some minor violations on large dams but the bigger concern is that OSM engineers often noted additional seeps that were not covered in monitoring reports or excessive vegetation that prevented examination for seeps. While missing a seep is not a violation by itself and therefore may not show up in analysis of the statistics on dam violations, monitoring seeps is a critical part of assessing proper dam functioning and OSM will continue its emphasis on dam inspection in 2012.

In January 2011, OSM clarified its ability to use the TDN process to address permit defects as well as violations that already have an on the ground impact. In West Virginia, OSM has issued three TDNs that involved permit defects. One TDN resulted in the State ordering a surface mine to include a nearby slurry dam in its blasting plan. Another resulted in WVDEP and the company deciding that the operation could not continue a refuse removal remaining project after OSM pointed out several permitting problems including the fact that the proposed runoff control for the site involved directing polluted water into an underground mine that was already completely full of water and likely discharging to a nearby creek. The evaluation report discussing those problems can be found on the Charleston Field Office web site (Evaluation for Targe Energy dba Coal Valley, LLC) at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>. The third permit defect TDN related to a citizen complaint alleging seven violations, including concerns with water quality in relation to the use of coal combustion waste as alkaline amendment, storm water control and the location of the haul road. The State's response is still under review.

D. Slurry Impoundment Basin Breakthrough Potential

As discussed in more detail in Section VII of this report, OSM and WVDEP began conducting an ongoing technical review concerning issues related to the breakthrough potential of coal slurry into underground mine workings in 2001. During previous phases of this review, a number of issues were identified. The current phase was intended to determine if these issues were specific to the permits for which they were identified, or if they were programmatic in nature. It is anticipated the current phase of this study will be completed next year, and the findings will be discussed in detail in the 2012 Annual Evaluation Report.

Also, during this phase, OSM decided to review a number of additional questions. OSM has authored a technical position paper on these issues and it has been widely distributed for peer review.

E. Program Amendment/Maintenance Status

Program Amendment Status

1. Statutory/Regulatory Amendments (WV-113/WV-114)

By letter dated April 8, 2008, and received electronically by OSM on April 17, 2008, (Administrative Record Number WV-1503), the WVDEP submitted an amendment to its program under the Federal Surface Mining Control and Reclamation Act (30 U.S.C. 1201 et seq.). The amendment consisted of changes to the West Virginia Code of State Regulations (CSR) and the West Virginia Code, as contained in Committee Substitutes for Senate Bills 373 and 751.

Committee Substitute for Senate Bill 373 authorized revisions to the State's Surface Mining Reclamation Regulations at 38 CSR 2 and its Surface Mining Blasting Rule at 199 CSR 1. Committee Substitute for Senate Bill 373 was adopted by the Legislature on March 6, 2008, and signed into law by the Governor on March 28, 2008. West Virginia Code at paragraphs 64-3-1 (o) and (p) authorized WVDEP to promulgate the revisions to its rules as legislative rules. The revisions related to a variety of topics, including new language for technical completeness of permit applications, incidental boundary revisions (IBR), permit issuance findings, inspection of impoundments, reclamation of natural drainways subsequent to sediment pond removal, stormwater runoff analysis, contemporaneous reclamation standards regarding excess spoil fills and bonding of certain types of excess spoil fills, and effluent limits and bond releases on remining operations. Most blasting provisions have been removed from the Surface Mining Reclamation Regulations and will now only be found in the State's Surface Mining Blasting Rule.

In addition, the amendment contained Committee Substitute for Senate Bill 751, which was adopted by the Legislature on March 8, 2008, and approved by the Governor on March 27, 2008. Committee Substitute for Senate Bill 751 amended and reenacted Section 22-3-11 of the West Virginia Surface Coal Mining and Reclamation Act (WVSCMRA) relating to the State's ABS, which is commonly known as the Special Reclamation Fund.

In a *Federal Register* notice dated June 16, 2008, OSM approved, on an interim basis, a portion of the Committee Substitute for Senate Bill 751 (73 FR 33884-33888). Among other things, the bill reinstated and increased the special reclamation tax and created the Special Reclamation Water Trust Fund. OSM specifically approved the reinstatement of the seven cents per ton special reclamation tax, its increase to seven and four-tenths cents, and the creation of the Special Reclamation Water Trust Fund for the purpose of designing, constructing and maintaining water treatment systems on bond forfeiture sites in the State. OSM also announced a public comment period on those provisions and the other revisions set forth in Committee Substitute for Senate Bill 751. The public comment period closed on July 16, 2008.

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In addition, OSM published another notice soliciting public comments on all of the proposed revisions to the State's Surface Mining Reclamation Regulations and its Surface Mining Blasting Rule, as provided by Committee Substitute for Senate Bill 373. The notice was published in the *Federal Register* on July 8, 2008, (73 FR 38941-38951). The public comment period closed on August 7, 2008.

The final decision is to be published in the *Federal Register* in the near future.

2. Alternative Bonding System (WV-115)

On May 28, 2009, WVDEP submitted a proposed statutory amendment to its ABS (Administrative Record No. WV-1521). The amendment consists of Committee Substitute for Senate Bill No. 600 which amends §22-3-11(h) of the West Virginia Code concerning the State's ABS, commonly referred to as the Special Reclamation Fund. This bill was passed by the Legislature on April 10, 2009, and signed by the Governor on May 4, 2009, with an effective date of July 1, 2009. In its letter, WVDEP acknowledged that Committee Substitute for Senate Bill No. 600 amends §22-3-11 of the Code of West Virginia to implement actuarial recommendations relating to the continuing fiscal viability of the Special Reclamation Fund. The legislation consolidates what has been known as the "7-and- 7.4 tax" (the 7.4 portion of which is currently subject to annual renewal) into a 14.4 cents tax per ton of clean coal mined, reviewable every two years by the Legislature.

As proposed, the State intends to eliminate the additional seven cents per ton tax and increase and extend the special reclamation tax from seven and four-tenths to fourteen and four-tenths cents per ton of clean coal mined. In addition, instead of being reviewed annually, the special reclamation tax will be reviewed biannually by the Legislature to determine whether the tax should be continued.

A notice announcing receipt of the proposed amendment and request for public comments was published in the *Federal Register* on July 22, 2009, (74 FR 36113-36116). In the same notice, OSM also approved the proposed increase and extension of the special reclamation tax on a temporary basis. This was necessary because the existing special reclamation tax was due to expire on June 30, 2009, the proposed State revisions were to take effect on July 1, 2009, and any delay in the implementation of the State's special reclamation tax could jeopardize the financial solvency of the State's ABS. A final decision has been incorporated into WV-116 as discussed below and will be published in the *Federal Register* in the near future.

3. Statutory/Regulatory Revisions (WV-116)

By letter dated May 11, 2009, WVDEP submitted an amendment to its regulatory program which included Committee Substitute for Senate Bill 153. This bill modified the State's Surface Mining Regulations concerning the continued oversight of "approved" persons who prepare, sign, or certify mining permit applications and related materials. The bill also proposes to modify IBRs to existing permits, clarify certain types of collateral activities, delete the bonding matrix forms, change the term "bio-oil" to biofuel, and clarify standards for hayland and pasture use (Administrative Record Number WV-1522).

On May 22, 2009, the WVDEP submitted copies of Senate Bill 436. Senate Bill 436 amends West Virginia Code 22-3-8 by changing references to "the commissioner of the Bureau of Employment Programs" to "executive director of the Workforce West Virginia" and "the executive director of the workers' compensation commissioner" to "Insurance Commissioner" (Administrative Record Number WV-1521).

On July 6, 2009, WVDEP also submitted a copy of Senate Bill 1011. Senate Bill 1011 amends West Virginia Code by requiring surface mine reclamation plans to comport with approved master land use plans and authorizing surface mine reclamation plans to contain alternative PMLU land uses (Administrative Record Number WV-1523)

A proposed rule announcing the receipt and a public comment period on all of the proposed State revisions was published in the *Federal Register* on October 21, 2009, (74 FR 53972-53979). The public comment period closed on November 20, 2009, but it was extended until December 18, 2009, at the request of a public interest group. Various federal and state agencies were notified of the proposed revisions and submitted comments in response to them.

A final decision is still being drafted by OSM in response to the proposed State changes and the comments. In addition, on June 7, 2011, OSM had to seek further clarification from WVDEP regarding its proposal to change the term bio-oil crop land to biofuels crop land at CSR 38-2-7.2.e, 7.3.d, and 7.8. At the end of the evaluation year, OSM was still waiting for a formal response to that inquiry. OSM intends to combine WV-115 and WV-116 and publish its final decision on both amendments in the *Federal Register* in the near future.

4. Statutory/Regulatory Revisions (WV-117)

On May 2, 2011, WVDEP submitted revisions to its permanent surface coal mining regulatory program (Administrative Record Number WV-1557). The amendment consists of statutory revisions to the State's Surface Coal Mining and Reclamation Act as authorized by Enrolled Committee Substitute for House Bill No. 2955 (HB 2955) and regulatory revisions to the State's Surface Mining Reclamation Regulations as authorized by Enrolled Committee Substitute for Senate Bill No. 121 (SB 121).

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HB 2955 was adopted by the West Virginia Legislature on March 18, 2011, and approved by the Governor on April 5, 2011. HB 2955 increased the filing fee for the State's surface mining permit to \$3,500, the permit renewal fee to \$3,000, and established a notice of intent to prospect fee of \$2,000, a significant permit revision fee of \$2,000, a permit amendment fee of \$550, a permit transfer fee of \$1,500, a permit assignment fee of \$1,500, and an inactive status approval fee of \$2,000. WVDEP requested that these revisions be approved by OSM on an interim basis in the *Federal Register* and take effect immediately upon publication of the interim rule.

SB 121 passed the West Virginia Legislature on March 18, 2011, and was signed by the Governor on March 30, 2011. SB 121 authorized WVDEP to promulgate several revisions to its Surface Mining Reclamation Regulations. SB 121 authorizes regulatory revisions which, among other things, provide for a minimum incremental bonding rate of \$10,000 per increment at CSR 38-2-11.4.a.2. Section 22-3-11(a) of WVSCMRA currently requires mining operators to furnish a minimum bond of \$10,000, regardless of acreage. Under the revised provision, an operator will have to post a minimum bond of \$10,000 for each increment that is to be mined.

A notice announcing receipt of the proposed amendment and request for public comments was published in the *Federal Register* on June 29, 2011, (76 FR 37996-38000). The public comment period closed on July 29, 2011. The notice also announced OSM's decision to approve the State's new and increased permit fees and its minimum bonding rate of \$10,000 per increment on a temporary basis. Because State permit fees provide a source of revenue for the State to administer its permanent regulatory program, OSM found that it was in the public's interest that the new and increased permit fees and the incremental bonding rate be implemented without further delay. Once OSM reviews and considers all comments on the proposed modifications, a final decision will be rendered and published in the *Federal Register*.

5. Regulatory Revisions (WV-118)

As mentioned above, on May 2, 2011, WVDEP submitted regulatory revisions to the State's Surface Mining Reclamation Regulations as authorized by Enrolled Committee Substitute for Senate Bill No. 121 (SB 121) (Administrative Record Number WV-1561).

In addition to the minimum incremental bonding rate of \$10,000 per increment as discussed above, SB 121 authorized WVDEP to modify its Surface Mining Reclamation Regulations by codifying an emergency rule filed in December 2009 relating to the establishment of trust funds and annuities; clarifying the format and information necessary for a complete permit application submittal and for the renewal process to take into account WVDEP's electronic filing process; providing that an approved person must be capable and maintain the capability of submitting maps, plans and all other technical data in an electronic format proscribed by the Secretary; providing that pre-subsidence surveys

shall be confidential and only used for evaluating damage relating to subsidence; clarifying that bonding for a permit in inactive status shall remain in effect for the life of the operation; and providing that the Secretary shall provide e-mail notice of the issuance of a show cause order to members of the public who have subscribed to the Secretary's e-mail notification service and otherwise provide notice to any person whose citizen complaint has resulted in the issuance of any enforcement action that led to the issuance of a show cause order.

A notice announcing receipt of the proposed regulatory revisions and request for public comments has been drafted and will be published in the *Federal Register* shortly.

Program Maintenance

1. Required Program Amendments

West Virginia has no outstanding required program amendments.

With the approval of an amendment in March 2006, the State resolved all of the outstanding required amendments on its permanent regulatory program.

2. 30 CFR Part 732 Notifications

As reported earlier, the State also resolved all program issues resulting from the issuance of 30 CFR Part 732 notifications by OSM. The Part 732 notifications were issued to the State as a result of changes in Federal law or regulations.

As previously reported, OSM agreed in 2003 that, given ongoing litigation, the State did not have to take any action with regard to the Part 732 notifications concerning ownership and control, subsidence, and valid existing rights. A formal announcement of that decision was published in the *Federal Register* on April 29, 2004, (69 FR 23474).

On December 3, 2007, OSM published final ownership and control regulations in the *Federal Register*, (72 FR 68000-68031). In July 2008, the National Mining Association filed a writ of certiorari with the U.S. Supreme Court questioning a January 2008 U.S. Court of Appeals decision which found that OSM's definition of valid existing rights does not violate the Constitution's takings and due process clauses. In December 2008, the U.S. Supreme Court declined to hear that appeal.

All litigation concerning the federal requirements mentioned above has now been resolved. OSM is to notify the State when it will have to revise its program in response to the federal regulations that were in litigation. Potential need for change has been informally discussed with State officials but no official notifications have been developed by OSM.

F. Liability Insurance Review Continuation

Because of concerns in other States, both WVDEP and OSM agreed to evaluate liability insurance policies purchased by coal companies operating in West Virginia to ensure that there are no deductible clauses in them that may affect policy coverage and to guarantee that both the liability period and the liability coverage amounts are sufficient to cover personal and property damage, as provided by the approved State program.

As reported in prior years, State and OSM officials developed a questionnaire and mailed it to a representative number of insurance companies in the State who produced policies through national insurers to provide liability insurance coverage for coal companies to conduct surface mining reclamation operations in the State. Since only certificates describing the policies and not the actual policies themselves are on file with the State, it was necessary to get the information from the insurance companies.

Unfortunately, only a few insurance companies responded to the request for information. To improve the response rate, the team resent the questionnaire electronically to those insurance companies that did not respond to the initial inquiry. Unfortunately, the team only received one additional reply. Out of the 20 insurance agents that have been contacted, the team has only received three complete and one partial response. Last year, alternative measures were employed to get the information that is necessary to complete this review. Again, not all companies were cooperative, and we only received information from three additional companies.

This review is still ongoing and will be continued into next year. Rather than trying to contact the insurance companies again, the team will complete this review with the information that it has been provided to date.

G. Incidental Boundary Revision Review (Program Amendment Status)

As discussed last year, CHFO evaluated the State's implementation of its incidental boundary revision (IBR) requirements. The evaluation found that WVDEP was performing many aspects of its IBR process well in that all new acreage was being added under an IBR or amendment and it was being bonded. In addition, WVDEP recognized that an IBR application did not quite fit the profile of a minor boundary adjustment and treated the requests as significant permit revisions with increased public comment periods.

However, many of the IBRs in the review were combined with other operational changes, and the IBR acreage limits for surface mines were exceeded making the classification of all the changes subject to question as an IBR. In some cases, the WVDEP added additional timeframes to the public comment period to process the change more like a significant revision, but this was not true in all situations that did not strictly fit the IBR definition. IBRs only pertain to minor shifts or adjustments in the boundaries of existing mining

operations. Because complex changes were still labeled IBRs, there may have been less public interest in the advertisement, even if the length of the comment period was increased. State law at §22-3-19(b)(3), like federal law, provides that any extension to an area covered by a permit, except an IBR, requires the submission of a new permit application or amendment.

As discussed last year, some of the problems identified in the study relate to the State's IBR policy, which in some instances does not require all the necessary information or conflicts with State program requirements. That policy provides waivers reserved for underground mining operations to be used for coal refuse disposal or coal preparation operations where the activity directly facilitates underground mining operations. OSM found examples where waivers were granted in those situations that do not meet program requirements.

WVDEP had submitted a proposed program amendment to OSM relating to its IBR requirements which may resolve some of these concerns. The program amendment was pending OSM review at the end of this reporting period. OSM and WVDEP agreed to completely process the program amendment before taking any action concerning this issue.

H. Special Reclamation of Sites with Third Party Liabilities

In 2006, the WVDEP and OSM identified 42 revoked permits as potentially having a third party obligated to complete land and/or water reclamation. From a file review, the reviewers were unable to determine whether reclamation had been completed for 27 of the 42 permits. Those 27 permits and several administrative or procedural issues have been the subject of an ongoing study that is further discussed in Section VII.

I. Bond Forfeiture Inspection Frequency Continuation

OSM announced approval of the State's abandoned sites rule at CSR 38-2-20.1.a.6 in the *Federal Register* on February 8, 2005, (70 FR 6583-6584). Pursuant to that rule, the State may reduce its inspection frequency on bond forfeiture sites that are not yet fully reclaimed or are still carried as jurisdictional sites because they require water treatment. The criteria that the State may use to provide for the reduced inspection frequency are set forth in that rule. Prior to the approval of those provisions, the State was required to conduct monthly inspections of bond forfeiture sites. As of June 30, 2011, WVDEP was carrying 291 sites (278 permanent program and 13 interim program sites) awaiting land reclamation and/or requiring water treatment or monitoring.

As previously reported, the State modified its inspection and contract monitoring forms. The revised forms include a Land Inspection Report, a Water Inspection Report and a Construction Inspection Report. When used in combination, the Land and Water Inspection Report forms include all of the performance standards that are commonly

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evaluated by an inspector during a complete inspection. These inspection activities are reimbursable under the State's Administration and Enforcement Grant (A&E Grant).

The Construction Inspection Report form includes those items that are typically evaluated as part of a bond forfeiture reclamation contract. These monitoring activities are not eligible for reimbursement under the State's A&E Grant.

OSM has acknowledged the adequacy of the revised forms for inspection and contractual purposes. However, given the amount of paperwork that a bond forfeiture reclamation specialist must complete and the fact that the State has not been given credit for all such inspections in prior years because OSM has found that some do not constitute complete inspections, the State indicated that it may be willing to modify its inspection forms. During the evaluation year, CHFO provided the State proposed inspection forms that were previously developed and discussed various alternatives for streamlining the bond forfeiture inspection process.

Under the State's approved program, bond forfeiture reclamation specialists must conduct monthly inspections or follow the criteria set forth in the State's abandoned sites rule at CSR 38-2-20.1.a.6 before they can reduce inspection frequency at bond forfeiture sites. During this evaluation period, the State did not conduct any hearings to reduce inspection frequency at bond forfeiture sites.

As shown in Table 10, the State conducted 753 complete inspections and 2,468 partial inspections at bond forfeiture (abandoned) sites during the evaluation period. OSM estimates that, in order to comply with its approved program, the State should have completed approximately 1,164 complete inspections and 2,328 partial inspections this year.

During the evaluation period, OSM and State officials held several discussions regarding its inspection process. State officials acknowledged that some bond forfeiture sites are considered complete and should not require inspection, but the State retains jurisdiction because water treatment is occurring on portions of those sites. State and federal officials discussed alternative procedures for reducing acreage at those bond forfeiture sites that is not required for water treatment. In the past, State officials have maintained that this reduction in acreage would enable the reclamation specialists to meet their required inspection frequencies at bond forfeiture sites. However, due to the Fourth Circuit Court of Appeals decision as further discussed in Subsection VI.T., State officials are now reluctant to reduce this acreage for fear that it may be needed to install additional water treatment systems at bond forfeiture sites in order to meet NPDES permit requirements.

During the reporting period, CHFO and State officials also discussed various alternatives for terminating jurisdiction at bond forfeiture sites. Such a mechanism would enable the State

to terminate jurisdiction at bond forfeiture sites once they are completely reclaimed and water quality standards are attained without the threat of future reclamation liability.

OSM will continue to work with the State during the upcoming year to develop and implement these program improvements and to make sure the State is meeting its required inspection frequency at bond forfeiture sites.

J. Acid Mine Drainage Inventory of Active Permits Continuation

As previously reported, WVDEP completed acid mine drainage (AMD) inventories of active mining sites in 1994, 1996, 1998 and 2000. In September 2002, the State completed a plan that would have resulted in another AMD inventory update, but it was never fully implemented.

In 2006, WVDEP and OSM executed a work plan and assigned team members to conduct another review. The purpose of the review was to assist the State in the development of a current inventory of active mining and reclamation operations with AMD treatment, and to implement a process that would allow for the collection of raw water data at those sites on a regular basis in the future. To facilitate the review, the team used past AMD inventories and the State's NPDES database, which includes information regarding raw water and the type of treatment for each NPDES outlet. In addition, the DMR 6, State inspection report form, was modified to indicate which sites were treating water.

Preliminary data indicated there were approximately 370 active, bonded permits in the State with appreciable water treatment costs. The permits have approximately 556 NPDES outlets. Only 13 permits on the list were issued after 1999.

As previously reported, five tasks remain to be completed under the 2006 workplan. The remaining tasks relate to approximately 190 permits that require additional investigation to ensure that flow and or quality are adequately captured.

It was agreed that some of the required information necessary to complete the tasks could be obtained through the NPDES program. However, some adjustments in current NPDES policy or forms would be required in order to get the information on a regular basis. Last year, some adjustments were made to NPDES forms and procedures to obtain the required information to complete this project. However, it has been determined that these adjustments were not sufficient to provide the kinds of information needed to complete this project.

During this evaluation year, CHFO and State officials met to discuss this project. One of the major concerns is that pumped discharge from underground mines is not obtained and there is little information to verify the potential for flow from underground mines post closure of the mine. An AMD inventory is not a specific regulatory requirement and,

therefore, is not the subject of an action plan by itself. However, it is anticipated items that would strengthen the inventory will be considered in the action items being negotiated between OSM and WVDEP to address issues concerning water quantity and quality prediction from underground mines (see Section VII.F).

K. Reforestation Activities

During calendar year 2010, the WVDEP approved 51 surface mine permits and 16 surface mine permit amendments, covering 7,949 acres. Thirty two of the 51 surface mine permits issued propose forestland as the post mine land use, and ten additional permits are to be returned to fish and wildlife habitat. Ninety four percent of these permits, covering 6,670 acres, contain reclamation plans that require the implementation of the Forestry Reclamation Approach (FRA).

Nearly 3.5 million trees were planted in 2011 on approximately 5,200 acres of West Virginia mine sites. Approximately 1.5 million of these trees, covering 2,200 acres, were planted on sites where the FRA is being implemented. Through OSM oversight inspections, it appears that some operators, as well as some State inspectors, are resistant to the changes in regulations and permitting requirements with respect to the FRA. Improper selection of growth medium and over-tracking still occur on some sites with forest as the PMLU. With increased oversight and education, including appropriate enforcement actions, the requirements should become evident.

A Reforestation Workshop for land holding companies, foresters, inspectors, and others was held in June 2011 in Charleston, West Virginia, to discuss the principles of the FRA, permit sections and rules regarding FRA, research and findings in West Virginia regarding FRA, and successful reforestation efforts.

There were 3,139 acres approved for Phase III bond release in EY 2011, including 1,344 acres (43 percent) that were planted in trees for forest and/or wildlife habitat. There were 1,742 acres that were returned to pasture/hayland, and 53 acres to be utilized for commercial/light industrial land uses.

The Special Reclamation Section contracted for tree planting on nine bond forfeited permits in 2011. A total of 46,539 trees were planted on 82 acres.

The WVDEP and OSM presented the Appalachian Regional Reforestation Initiative (ARRI) 2010 Excellence in Reforestation Award to Coal-Mac, Inc.'s Phoenix No. 2 surface mine in Mingo County. This operator has implemented the FRA on nearly 500 acres of reclamation with great success.

The ARRI Excellence in Reforestation Award for calendar year 2010 was also presented to Apogee Coal Co.'s Guyan surface mine in Logan County. The operator has planted nearly

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400,000 trees over the past five years on 600 acres that are being returned to productive forestland. All aspects of the FRA have been implemented on this site, in addition to wildlife research plots to determine the most suitable species to create more diversity. This site was selected, from several nominations, as ARRI's Regional Award winner for 2010.

There were two AML projects which included tree plantings in 2011.

There were two Arbor Day events held by coal companies and OSM/Vista volunteer groups in the spring of 2011. The sites included ICG Eastern, LLC's Birch River Operation in Webster County, and the Friends of the Cheat Watershed Team and Patriot Mining in Preston County.

West Virginia University, in cooperation with Catenary Coal Company, continues to monitor tree growth and survival on its experimental practice site in Kanawha County. This site is being used to compare the effects of different growth mediums and compaction rates on tree survival and growth rates.

For further information concerning the ARRI refer to <http://www.arri.osmre.gov>



**Reforestation Award Site
Mingo County**

L. SWROA Root Cause Analysis – Kayford

During EY 2010, OSM began an evaluation of the root cause of flooding that occurred near the town of Dorothy, in Raleigh County, on June 13, 2010. The damage occurred after approximately three inches of rainfall occurred June 12 and 13. This storm represents a three year event which is less than the 25 year event required in the design of surface mines. The damage included flooding and sediment transport off of the permitted area, downstream from the toe of a valley fill.



Sedimentation in Gardner Branch

OSM concluded that, although other factors were an issue, the root cause of the offsite damage was an inadequate storm water runoff analysis (SWROA). The SWROA modeled the worst case scenario during mining for the entire permit, but not for individual points of discharge from the site, in particular, not for the discharge from the area tributary to Gardner Branch near Dorothy. This area was modeled as almost totally reclaimed; however, at the time of the event, the entire area was disturbed, and the fill was in a loose condition since it was in the process of being broken down. A final report was completed this evaluation year and can be found on the CHFO website at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

M. SWROA Root Cause Analysis Snap Creek 1 (S-5013-96)

This report analyzes and summarizes the cause of the flooding and scouring of the tributary to the Left Fork of Rich Creek, immediately downstream of Pond 4 and Valley Fill 4 of Permit No. S-5013-96 (Snap Creek Mining, LLC.) near Man, West Virginia. The erosion from Valley Fill 4 and the complete filling of Pond 4 with surface mine spoil occurred during a 3 to 5 inch rainstorm that struck the area on June 12-13, 2010. This storm represents a twenty-five year, twenty-four hour storm event which is the design standards to be employed in SMCRA permits. The overflow from Pond 4 partially eroded the paved emergency spillway at Pond 4 and scoured the stream channel directly downstream for a distance of 2,600 feet to the confluence with the Left Fork of Rich Creek. The erosion and sedimentation extended on into Rich Creek and on to its confluence with the Guyandotte River.



Pond 4 Filled with Rock and Sediment

The analysis found that the cause of the flooding/debris flow was directly attributed to the Snap Creek Mining operation permit S-5013-96. The problem was associated with failure to prevent erosion and instability below the outlets of Sediment Channels/Basins and also

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the failure to contemporaneously and systematically reclaim Valley Fill 4. Specifically, when the mining plan was changed to reduce the mining area (Revision 11), the SWROA was not revised to account for the elimination of the pit storage or the additional disturbance due to dumping outside the valley fill limits. Assumptions were made in the SWROA concerning available flood storage and flow path characteristics that were not consistent with those observed in the field. The detention structures for runoff from the drainage areas above and on Valley Fill 4 did not appear to have functioned as intended in the approved permit and SWROA. The final report was completed this year and can be found on the website at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>

N. Lands Unsuitable

On June 2, 2011, a coalition of historic preservation, environmental, and labor groups filed a 207 page petition with the WVDEP to designate 1,668 acres within the Blair Mountain Battlefield in Logan County unsuitable for mining under Section 22-3-22 of the WVSCMRA and CSR 38-2-3.17 and 19.7. The groups who filed the petition include the Sierra Club, National Trust for Historic Preservation, Friends of Blair Mountain, West Virginia Labor History Association, West Virginia Highlands Conservancy (WVHC) and Ohio Valley Environmental Coalition. Blair Mountain is the site of the largest labor conflict in United States history. In 1921, between 10,000 and 15,000 union coal miners fought with armed coal company guards along Blair Mountain in an attempt to unionize mines within the southwestern part of the State. Blair Mountain was removed from the National Register of Historic Places last year, but a Federal law suit is pending to restore it to its place on the National Register. There are 11 surface mining permits that have been issued for areas within or adjacent to the battlefield boundaries.

On July 5, 2011, WVDEP found the petition to be frivolous and denied the request that Blair Mountain be declared unsuitable for mining. According to the State, if an area has been confirmed for mining by a permit in the past, it is exempt from being considered for historic protection. WVDEP rejected the petition because it found that: 1) a significant portion or about 494 acres of the 1,688 acres on Blair Mountain is or has been covered by a permit issued after August 3, 1977; 2) there is evidence of pre-August 3, 1977, mining at various points along the ridgeline that is exempt from designation; 3) portions of the area in the petition for designation apparently have no connection to the Battle of Blair Mountain; 4) the area has been affected in the past and continues to be affected by oil and gas and logging operations; and 5) over 75 percent of the area lies within boundaries of an area which was previously and unsuccessfully proposed for designation and which does not present new allegations of facts. Some petitioners have criticized WVDEP for making its decision without holding a public hearing.

O. State Staffing

During this evaluation year, CHFO, in cooperation with the Appalachian Regional Office, initiated a study comparing regulatory staffing in West Virginia to that of surrounding coal-producing states. Staffing, permitting, inspection and enforcement data for this study was taken from the various EY 2010 State Annual Evaluation Reports. Due to problems with some of the initial data from the surrounding states, the team had to normalize it to account for staffing differences between states. This process is ongoing.

As shown in Table 8, the State's regulatory program staff totaled 266.05 Full-time Equivalent (FTE) positions, but 33 of those positions were vacant. Total regulatory program staff decreased by 2.0 FTE positions compared to last year. Although the State increased its hiring efforts, the number of vacancies remained about the same. Seventy percent of the vacancies are in permitting and inspection and enforcement.

During this evaluation year, the State submitted its proposed budget estimate for FY 2012. WVDEP projects that its regulatory staff will increase by 2.95 FTE positions and total 269 FTE positions during FY 2012. However, 33.35 of those positions will be vacant. Given the number of people at WVDEP who will be eligible to retire in the near future, State officials anticipate that this problem will not abate any time soon and they will be faced with filling more vacancies in the future.

As discussed in Subsection VI.E above, the State amended its Surface Coal Mining and Reclamation Act to increase the filing fee for its surface mining permit and to increase or establish new fees for other permitting actions. According to State officials, these changes will provide WVDEP approximately \$1.6 million annually in revenue to administer its regulatory program. These revisions were approved by OSM on a temporary basis in the *Federal Register* on June 29, 2011. Given the limited revenue that the State still expects to realize from increased permit fees, WVDEP, in cooperation with OSM, will continue to identify other potential sources of revenue to fund the implementation of the State's approved regulatory program.

P. Bond Forfeiture Reimbursement Rate

WVDEP reclaims bond forfeiture sites through its Special Reclamation Program. OSM fully approved the State's ABS on May 29, 2002. Since then, the State increased staffing for the OSR to eliminate the backlog of more than 290 bond forfeiture sites awaiting complete reclamation or still being counted as an inspectable unit because of continuing treatment of polluttional discharges.

Section 3-01-20 of the Federal Assistance Manual (FAM) provides that only those bond forfeiture costs that are not directly associated with site-specific activities are allowable under the State's A&E Grant. OSM and WVDEP have agreed to temporarily fund 45 percent

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of the field staff for the OSR under the A&E Grant. In the past, OSM paid 85 percent of the costs associated with some of the field positions. A special study to determine the actual reimbursement rate for this program in accordance with the FAM is still ongoing. Any shortfall in funding for the OSR will have to be covered by the Special Reclamation Fund.

Rather than conducting a workload analysis as planned earlier, CHFO will consider a mine acreage or area-weighted acreage option to arrive at a reimbursement rate for the Special Reclamation Program. During this evaluation year, bond forfeiture data and staffing information was updated and some progress was made on this project, but it did not get completed and will be continued into next year.

Q. Dam Compaction Study

During EY 2011, OSM began an evaluation of compaction of coarse refuse slurry impoundment embankments. The evaluation was conducted by employing an independent consulting firm to perform compaction testing during unannounced inspections at seven selected sites. This study is currently underway and results will be provided in the annual evaluation report for EY 2012.

R. Storm Water Runoff Analysis

During the evaluation year, OSM conducted a follow-up review of a 2009 oversight report on the administration of West Virginia's storm water runoff analysis (SWROA) requirements. West Virginia requires operators to reduce the potential for offsite damage from storm water runoff at mines by requiring operators to develop a model and plan for limiting runoff during certain sized storm events. Operators meet this regulatory requirement by conducting a SWROA and adding controls such as discharge retention structures. In 2009, OSM published an oversight report on this process which noted improvements in field control of runoff, but noted several concerns with the SWROA modeling. The WVDEP then agreed to further train its staff to address the concerns identified in the 2009 report and to also host industry training. They further agreed to monitor offsite impacts yearly to determine if there may be cause to refine the regulatory or procedural aspects of SWROA.

The OSM follow-up study focused on offsite impacts that might relate to the SWROA process. The reviewers found they were not able to assess all offsite impacts that might be related to the SWROA due to limitations related to the time lapses between the violations and OSM's ability to review field conditions. Of the eight cases OSM was able to investigate, five cases were found to be related to operator errors and not related to SWROA, and three cases had significant impacts related to the SWROA process. Two detailed reports discussing the three cases where significant impacts occurred can be found on the CHFO web site at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>. The reports are

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titled EY 2011 Offsite Damage - Snap Creek Mining LLC, Technical Assistance Report and Investigation of Offsite Damage at the Kayford South and Snap Creek Mine Sites.

Therefore, OSM again concludes that the SWROA process has reduced offsite impacts from mining but that occasional deficiencies in the process can contribute to significant offsite damage. While WVDEP has reportedly discussed the 2009 oversight findings and the importance of reviewing modeling assumptions with its staff, WVDEP has not completed the training with the industry as it proposed. Although it assisted with OSM's evaluation, WVDEP is not independently reviewing its violations for SWROA trends as it proposed in 2009. This year's evaluation also demonstrates WVDEP is not consistently requesting revisions to the SWROA even when the mine plan changes or offsite damage has actually occurred. WVDEP has recently provided OSM with a plan to address these issues which includes improvements in the SWROA application, certification and revision process, as well as identifying the need to conduct and document random reviews of operations after storm events. These changes will be implemented within the next six months. WVDEP will also conduct in-house and industry training to accomplish the above mentioned tasks and will train WVDEP inspection and enforcement staff to ensure that site inspections include review of monitoring plans and indicators related to SWROA effectiveness, such as stream scour, sedimentation and boulder movements. The EY 2011 SWROA oversight report and WVDEP resolution are viewable at the web site listed above.

S. Assessment of WVDEP Trend Station 071 West Fork of Pond Fork

The 071 trend station is one of a network of 233 trend station monitoring sites established by the WVDEP in 2002 that are located throughout the coal-producing counties of West Virginia. This network of trend station watersheds are represented as 12-digit Hydrologic Unit Code level watersheds. This trend station watershed includes numerous pre- and post-SMCRA underground and surface mines that occur as area, contour, and mountaintop surface operations, which are actively moving coal. Overall, the large post-SMCRA mountaintop surface mines in this watershed produce compliant discharges, with respect to metals and acidity. This time-series dataset indicates that trends of increasing levels of Total Dissolved Solids (TDS) (and specific conductance) and sulfate concentrations in this watershed originate from mining activities, especially from underground pumped discharges.

This watershed contains many pre- and post-SMCRA underground mining operations, especially longwall operations that have mined the Eagle and No. 2 Gas seams in this and adjacent watersheds. As a result of the longwall operations, approximately 13 miles of reaches of West Fork of Pond Fork and some tributaries have been dewatered. Watershed streams would be continually dry during baseflow conditions without contributions from underground pumped mine discharges, which significantly mineralizes the flow in West Fork. Underground mining impacts stream baseflow in numerous reaches of West Fork and significant intermittent streams, which contributes to the total flow in once perennial

streams. Streamflow is “pirated” into underground mines where it becomes highly mineralized, and eventually discharged from underground mine pump sites, which provide significant volumes of (mineralized) water to West Fork and its tributaries. All the available data indicates that discharges from underground mines and refuse impoundments are the significant contributors to elevated levels of sulfate and TDS concentrations to receiving streams. Surface mines and impoundments are also important contributors to TDS and sulfate concentrations, but are not considered as important as contributors, primarily due to their relative lower volumes of water that are discharged.

The TS 071 trend station water quality data from 2002 to 2010 showed that the concentrations of TDS and sulfate were elevated; however, the same data showed decreasing trends of TDS and sulfate loads throughout the sampling period. Although the underground mine discharges produce loads of elevated TDS and sulfate, they still play an important role in producing flow in streams and in effect, some dilution of these pollutants. All the information shows that discharges from mining activities, especially the underground and impoundment mining operations in this trend station watershed suggest a cause and effect relationship between water quality and benthic macro-invertebrate taxa. The West Virginia Stream Condition Index (WVSCI) scores trend downward with time from “good”, to “gray zone”, to “fair”. The trend station data shows the concomitant lowering of the WVSCI benthic macro-invertebrate scores occur with trends of increasing levels of specific conductance and sulfate concentrations with time, and a corresponding decline in WVSCI scores associated with declining TDS and sulfate loads with time. Since West Fork and some of its tributaries have been dewatered, this will be an impediment to the re-establishment of pre-mining water quality conditions in this watershed. Reclamation of surface mines alone will not result in the overall improvement of water quality conditions in this watershed.

T. Litigation

This section includes three major categories of litigation:

1. Litigation directly involving OSM.
2. Litigation against WVDEP on SMCRA related issues.
3. Litigation against permittees citing SMCRA and/or the Clean Water Act (CWA) against individual companies without directly involving OSM or WVDEP.

Although OSM is not named as a litigant in 2 and 3, we find it useful to monitor these cases to assist us in our oversight program. For example, the outcome of litigation against WVDEP related to CWA water quality violations at bond forfeiture sites will greatly influence how OSM judges the adequacy of the State’s bonding system. We are also monitoring citizen suits against coal companies related to CWA water quality violations to assist us in formulating a plan to review the adequacy of the SMCRA permit in controlling impacts to the hydrologic balance.

1. Litigation Against OSM

Material Damage to the Hydrologic Balance

Ohio Valley Environmental Coalition, Inc., et al. v. Secretary Salazar, DOI, Civil Action No. 3:09-0149, (S.D. W.Va.) and Ohio Valley Environmental Coalition, Inc., et al. v. Secretary Salazar, Civil Action No. 11-1049 (4th Circuit Court).

On February 18, 2009, the Ohio Valley Environmental Coalition (OVEC) and the West Virginia Highlands Conservancy (WVHC) filed a complaint with the U.S. District Court for the Southern District of West Virginia regarding OSM's decision to approve the addition of the State's definition of material damage to the hydrologic balance and the deletion of the State's definition of cumulative impact as announced in the December 24, 2008, *Federal Register* (73 FR 78970-78981). The complaint requests that the Court: 1) find that OSM's approval of the State program amendment violates SMCRA and the Administrative Procedures Act; 2) vacate OSM's approval and reinstate West Virginia's definition of cumulative impact; and 3) compel OSM to require the State to perform a new Cumulative Hydrologic Impact Assessment (CHIA) for each permit issued since December 24, 2008, using its definition of cumulative impact.

The DOI filed a response to the complaint on May 4, 2009. In addition, WVDEP filed a motion and a memorandum to intervene and an answer to the same complaint on May 21, 2009. On June 18, 2009, the District Court granted WVDEP's motion to intervene.

On June 26, 2009, the West Virginia Coal Association (WVCA) filed a motion and a memorandum to intervene as a defendant in the case. On June 30, 2009, the District Court granted WVCA's motion to intervene as a defendant. The WVCA also filed an answer to the complaint on June 30, 2009.

The Plaintiffs filed a motion for summary judgment and a memorandum in support of their motion for summary judgment on July 6, 2010.

On January 3, 2011, the District Court granted DOI's motion for summary judgment and denied the motion by OVEC and WVHC to reverse OSM's approval of the State's definition of material damage to the hydrologic balance and the deletion of the State definition of cumulative impact as announced in the December 24, 2008, *Federal Register*.

On January 13, 2011, OVEC et al. notified the District Court that it was appealing its January 3, ruling to the U.S. Court of Appeals for the Fourth Circuit.

On January 19, 2011, the 4th Circuit Court filed a notice opening the appellate case (OVEC et al. v. Salazar, Civil Action Number 11-1049).

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On March 2, 2011, the Plaintiffs filed their opening brief in the case. They allege that because the two program amendments allow West Virginia mining regulators to issue mining permits without first determining that proposed operations have been designed to prevent all excursions from applicable water quality standards, they are inconsistent with section 510(b)(3) of SMCRA and less stringent than the Secretary's implementing regulations for that statute, all of which must be construed to require such determinations as a pre-condition to receiving a SMCRA permit. Accordingly, the Secretary's approval of the two program amendments violated the standards for approval of program amendments established at 30 C.F.R. §§ 732.15(a), 730.5, and 732.17(h)(10).

On March 15, an Order was filed terminating the briefing order deadlines and updating the case status, amending the briefing order and suspending the briefing schedule. Under the Order, the Court suspended briefing until March 30, to provide Appellees time to file any necessary motions. A briefing schedule would be reissued after that date. The WVCA and the WVDEP joined in the appeal.

On March 29, 2011, the Defendants filed motions to file separate briefs. On March 31, the Court issued an Order granting the motions to file separate briefs, providing that they are due by April 18. On April 6, the Court issued an Order granting the Federal appellee until May 16 to file a response brief. On April 8, the intervenors in the case requested extensions until May 16 to file reply briefs. On April 8, the Court issued an Order granting the motion to extend the filing time for response briefs to May 16, and any reply brief is due within 14 days of the filing.

The WVCA, as intervenor, requested permission on May 13 to file a supplemental appendix containing District Court documents which show that the Plaintiffs' statutory construction arguments in their opening brief were not properly preserved for appeal.

On May 13, 2011, the DOI filed an 87-page reply brief. On May 16, the Court issued an Order granting a motion to file a supplemental appendix. On May 16, the WVCA and the WVDEP filed reply briefs as intervenors in this case. On May 23, the Plaintiffs filed a motion to extend the time to file the reply brief to June 20, and on the same day, the Court issued an Order granting the extension. On June 20, 2011, the Plaintiffs filed a reply brief to the Federal appellee's brief of May 13.

West Virginia Group Wants Case Reopened Involving State's Bonding Program

West Virginia Highlands Conservancy v. Secretary Ken Salazar and West Virginia Coal Association, DOI, Civil Action No. 2:00-cv-1062 (S.D. W.Va.).

On March 15, 2011, the West Virginia Highlands Conservancy (WVHC) moved to reopen a case involving the solvency of West Virginia's ABS, a bond pool made up of forfeited bonds and taxes on coal production. At issue is how the State treats water pollutional discharges

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at bond forfeiture sites. This is the third time WVHC has contested OSM's 2002 approval of changes to the State's bonding program. The initial complaint was filed in November 2000. Although the U.S. District Court neither reversed nor remanded OSM's approval in the previous two rulings, the Court has not dismissed this case altogether. Therefore, WVHC filed a motion to reopen the case, rather than issuing a Notice of Intent to Sue (NOI).

In its current complaint, WVHC alleges that the WVDEP has undermined the Special Reclamation Fund Advisory Council's annual report recommendation that West Virginia increase revenue in its ABS to meet anticipated shortfalls in funding the treatment of water pollution discharges by increasing the tax on coal from 14.4 cents to 25.49 cents per ton. In addition, WVHC maintains that the State has not included in its projections the cost to obtain NPDES permits for long-term water discharges at bond forfeiture sites.

On March 24, 2011, the District Court issued an Order directing the Defendant and the Intervenor Defendant to respond to the motion to reopen this action by no later than April 12.

On April 8, the Federal defendants filed a response in opposition to the Plaintiff's second motion to reopen the case. The Federal defendants maintain that it is premature to reopen the case for three reasons: first, the State's ABS will remain solvent at the current level for nine more years; second, WVDEP correctly concluded that the special reclamation tax should not be increased until the cost to treat sites to NPDES water quality standards is calculated; and finally, a substantial discrepancy in prediction of the long-term solvency of the ABS between consecutive actuarial studies must be resolved.

On April 12, the WVCA filed its response in opposition of the Plaintiff's second motion to reopen the case.

On April 15, the Court granted the Plaintiff's unopposed motion to extend the time to respond to both the Defendants and Intervenor's replies until April 22.

On April 22, 2011, the Plaintiff replied in opposition to the Defendant's and Intervenor's motions that the case not be reopened. The Plaintiff moved that this case be reopened because the Advisory Council's recommendations are not being followed. According to the Plaintiff, the single condition for reopening this case was met when WVDEP overrode the Advisory Council's recommendation. In addition, the Plaintiff maintains that the Court deferred taking action on OSM's 2002 approval of the ABS, because OSM acknowledged that within two years (2004) the Advisory Council would have the information it needed to assure that the fund's deficit would be fully eliminated. Because the ABS deficit has not been eliminated, a failure to reopen this case would create a continued climate of lawlessness and unreasonable delay.

On July 14, 2011, the Court ordered that a status conference be held on August 5, 2011, to discuss the case.

2. Litigation Against WVDEP

Citizen Suits Regarding Water Quality Violations at Bond Forfeiture Sites

West Virginia Highlands Conservancy, et al. v. West Virginia Department of Environmental Protection, Civil Action Nos. 2:07-cv-00410 and 1:07-cv-00087-IMK, (S.D. and N.D. W.Va.).

As previously reported, on June 28 and June 29, 2007, the West Virginia Highlands Conservancy and the West Virginia Rivers Coalition filed two complaints for declaratory and injunctive relief with the U.S. District Courts for the Southern and Northern Districts of West Virginia, respectively. The complaints allege that WVDEP failed to appropriately treat discharges of AMD at 21 bond forfeiture sites throughout the State. According to the complaints, the WVDEP also violated the CWA by failing to obtain NPDES permits for the discharges from State constructed water treatment facilities at the bond forfeiture sites.

On January 14, 2009, the U.S. District Court for the Northern District of West Virginia issued an Order finding that WVDEP was violating the CWA by emitting pollutants into navigable waterways of the United States from a point source without a permit and ordered the WVDEP to apply for and obtain NPDES permits for discharges from 18 bond forfeiture sites in the northern part of the State. After further review, on March 26, the Northern District Court issued a permanent injunction requiring WVDEP to apply for and obtain NPDES permits for the 18 bond forfeiture sites. In so doing, the Court ordered WVDEP to: 1) file NPDES permit applications for the sites within 180 days of the Order; 2) obtain NPDES permits for the sites within 360 days of the Order; 3) file progress reports with the Court: when the purchasing contracts are in place for each site; upon the initial submission of the NPDES permit applications; upon determination that the initial permit applications have either been deemed complete or have been returned for needed revisions; and once the draft permit has been deemed complete; and 4) alternatively, if none of these four benchmarks are met during a 3-month period, then WVDEP must file a report for that quarter. In addition, the Court denied WVDEP's motion to stay the injunction pending an appeal to the U.S. Court of Appeals for the Fourth Circuit.

On March 30, 2009, the Southern District Court issued an Order granting the Defendant's motion for more time to respond to the Plaintiffs' motion for summary judgment dated March 12, 2008; the Plaintiffs' motion for leave to file supplemental exhibits in support of their motion for summary judgment and injunctive relief dated April 24, 2008; and the Plaintiffs' motion for leave to file supplemental authority in support of their motion for summary judgment dated January 14, 2009. On March 30, 2009, the Plaintiffs also filed supplemental exhibits and supplemental authority in support of their motion for summary judgment dated March 12, 2008.

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On April 23, 2009, WVDEP filed an appeal with the U.S. Court of Appeals for the Fourth Circuit (4th Cir. No. 09-1474). The Fourth Circuit issued a Briefing Order on July 13, 2009, and the State filed its opening brief on August 24, 2009.

On August 24, 2009, the Southern District Court issued an Order granting the Plaintiffs' motion for summary judgment and declaratory and injunctive relief and finding WVDEP to be in violation of the NPDES permitting requirements of the CWA. The Southern District Court ordered the State to apply for and obtain NPDES permits for the three southern bond forfeiture sites in the case. However, the Court did not approve the plaintiffs' proposed order that permanent injunctive relief and final judgment be granted due to the Court's concern about the Attorney General's lack of involvement with this case. On April 30, 2010, the Plaintiffs filed a motion with the District Court for permanent injunctive relief and final judgment. On May 13, 2010, WVDEP filed a response to the Plaintiff's motion taking no position with respect to it.

On August 27, 2009, the Interstate Mining Compact Commission filed an Amicus Curiae brief with the Fourth Circuit Court in support of the State and seeking reversal of the Northern District Court's decision. On September 24, 2009, the Plaintiffs filed a response brief with the Court. The WVDEP filed a reply brief on October 8, 2009, and filed a corrected brief on October 9, 2009.

On January 11, 2010, the Plaintiffs filed a NOI with WVDEP. In the NOI, the Plaintiffs allege that WVDEP controls and operates facilities at an additional 131 bond forfeiture sites in West Virginia that are discharging pollutants into waters of the United States without the required NPDES permits.

On February 9, 2010, the Court of Appeals issued an Order denying a request by the Defendant to supplement the record in the District Court. On February 17, the Fourth Circuit announced that oral arguments in the case were tentatively scheduled for May 11-14. On March 24, 2010, this case was continued due to scheduling reasons. On June 18, 2010, the Court of Appeals tentatively scheduled oral arguments in this case for September 21-24, 2010.

On November 8, 2010, the Court of Appeals affirmed the Northern District Court's ruling of January 2009 that requires WVDEP to improve the treatment of AMD and other pollution at abandoned coal mines that are being reclaimed by the State. The Court of Appeals found that WVDEP must obtain NPDES permits for the 18 bond forfeiture sites in the northern part of the State that require water treatment. A similar decision in the Southern District Court held that WVDEP had to improve treatment so discharges from three other abandoned mine sites in the southern part of the State would have to comply with State water quality standards. Although the ruling only addressed the northern sites, WVDEP is

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developing NPDES applications for more than 120 bond forfeiture sites where water discharges are currently being treated by the State.

3. Litigation Against Coal Companies

a. Citizen Suit Regarding Alleged Water Quality Violations by Fola Coal Company, LLC

Sierra Club et al. v. Fola Coal Company, LLC Civil Action No. 2:10-cv-1199.

On October 11, 2010, the Sierra Club and the West Virginia Highlands Conservancy (Sierra Club et al.) filed a complaint for declaratory and injunctive relief and for civil penalties against Fola Coal Company, LLC (Fola). According to the complaint, since March 2007, Fola's No. 3 Surface Mine has discharged, and continues to discharge pollutants, which cause acute and chronic toxicity, ionic stress, and biological impairment, into Boardtree Branch of Twentymile Creek (in Clay County, West Virginia) in violation of West Virginia's narrative water quality standards for biological integrity and aquatic life protection. By violating State water quality standards, they allege that Fola has also violated, and is continuing to violate, the performance standards incorporated as conditions in its West Virginia SMCRA permit. The Plaintiffs ask the Court to cease such activity and order Fola to pay appropriate civil penalties up to \$37,500 per day for each CWA violation.

On December 23, 2010, the parties participated in a planning meeting. On the same day, the Court issued an Order setting dates for pleadings, discovery, expert disclosure and dispositive motions. A settlement meeting is scheduled for September 13, 2011.

On May 24, Fola filed a motion to extend the deadline for disclosure and to further modify the existing scheduling order. On May 25, the Court issued an Order granting the Defendant's motion to extend the deadline for disclosure and amend the scheduling order. Expert disclosure is due by June 9, and the deposition deadline and close of discovery is June 13. On June 9, Fola filed a motion to extend the deadline for disclosures to June 10.

On July 11, 2011, the Court granted the parties' joint motion to extend the discovery and dispositive motion deadlines and amended the scheduling order to provide that August 10 is the last day to file dispositive motions, all responses are due by August 24, and any reply brief is due August 31, with discovery set to close on August 8.

b. Citizen Suits Involving Alleged Water Quality Violations by Massey Energy Company

Ohio Valley Environmental Coalition, Inc., et al. v. Independence Coal Company, Inc. et al., Civil Action No. 3:10-00836, (S.D. W.Va.).

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Sierra Club, et al. v. Elk Run Coal Company, Inc., et al., Civil Action No. 2:10-00673, (S.D. W.Va.).

On April 27, 2010, the Sierra Club, et al., filed a complaint in the United States District Court for the Southern District of West Virginia for declaratory and injunctive relief and for civil penalties against Massey Energy and its subsidiaries for violations of the CWA and the SMCRA. The complaint states that between April 10, 2008, and December 31, 2009, Massey accrued at least 3,307 days of violations through 255 unlawful discharges. The discharge pollutants, which included aluminum, pH, suspended solids, and iron, are alleged to violate the CWA and SMCRA.

On June 14, 2010, the District Court issued an Order and Notice setting forth deadlines in this case for motions, meetings, scheduling conference, scheduling order, and disclosure. On July 7, Massey filed a motion to dismiss and a memorandum in support of its motion to dismiss the case. According to Massey, the existing Consent Decree bars the Plaintiffs' claims in this case, and the Court lacks subject matter jurisdiction over this case, because the Consent Decree between Massey and EPA constitutes a diligent prosecution of the discharges that arise from each and every NPDES permit that comprise the basis of the Plaintiffs' allegations.

On July 14, 2010, Massey filed a motion and memorandum to transfer and/or consolidate this case with 3:10-cv-00836, a similar case involving Independence Coal Company and Jacks Branch Coal Company.

On July 23, 2010, the Plaintiffs filed a response in opposition to Massey's motion to dismiss this case.

On August 1, 2010, the Plaintiffs filed a memorandum in opposition to Massey's motion to consolidate the cases.

On August 4, 2010, a joint motion was filed to extend the deadline for the Rule 26(f) meeting to August 20, 2010, and on August 5, 2010, the Court issued an order approving the motion. A Rule 26(f) meeting was held on August 16, 2010, and provides for discovery requests through October 27, 2010, a pre-trial conference on April 11, a final settlement conference on April 22, and the case should be ready for trial on April 25. On August 23, 2010, the District Court issued an Order cancelling the scheduling conference and setting forth how the case would proceed.

On September 28, 2010, the Plaintiffs' filed a memorandum in support of their motion for partial summary judgment and declaratory and injunctive relief and civil penalties. On November 1, 2010, the Court issued an Order granting the parties' joint motions to modify the scheduling order and the briefing schedule. On November 5, 2010, the Court issued an Order granting the Plaintiffs' request for leave to file a supplemental brief in support of

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their motion for partial summary judgment. On November 15, 2010, the Court issued an Order granting the parties' joint motion to hold the defendants' cross-motion for partial summary judgment in abeyance.

On November 23, 2010, the District Court denied the Defendant's motion to dismiss the case.

On December 3, 2010, a joint motion was filed to suspend the scheduling order and set a deadline for submittal of a proposed consent decree. On December 6, 2010, the Court issued an order suspending the scheduling order and directing the parties to submit a proposed consent decree or, if settlement is unsuccessful, to report on the status of negotiations.

On April 11, 2011, a status report and joint motion by the parties was filed to continue suspension of the scheduling order and to extend the deadline for submittal of the proposed consent decree. On April 12, the Court issued an Order granting the joint motion to suspend the scheduling order and to extend the deadline for submittal of the consent decree. The parties were to report on the status of settlement negotiations by May 11. On May 11, 2011, the Plaintiffs gave notice of lodging a proposed Consent Decree that was signed by all parties and will resolve all claims in this case. The parties requested that it be reviewed and entered by the Court as expeditiously as possible.

c. Citizen Suit Involving Alleged Water Quality Violations by Powellton Coal Company, LLC

Sierra Club, et al. v. Powellton Coal Company, Civil Action No. 2:08-cv-01363, (S.D. W.Va.).

On November 24, 2008, the Sierra Club and the Ansted Historic Preservation Council filed a complaint for declaratory and injunctive relief and for civil penalties against Powellton Coal Company, LCC (Powellton) in U.S. District Court for the Southern District of West Virginia. According to the Plaintiffs, between March 1, 2006, and March 31, 2009, Powellton accrued 6,767 violations of the CWA and SMCRA as a result of discharges of pollutants into waters of the United States at its Bridge Fork West Surface Mine, its Bridge Fork Surface Mine No. 1, its Sugarcamp Loadout, and its Rich Creek Haulroad.

Upon submission of the NOI in this case, the State issued a consent order that required Powellton to immediately take all measures to initiate compliance with all terms and conditions of its NPDES permits and to submit a corrective action plan showing how it would achieve compliance. Powellton also agreed to a civil penalty assessment of \$121,110. In response to the plaintiffs' NOI, Powellton responded that the alleged violations in it were subject to a comprehensive enforcement action by the State, and thus, plaintiffs' claims are precluded under the CWA. In addition, Powellton maintained that suing under SMCRA was an unfounded and an irresponsible waste of judicial resources.

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On February 3, 2010, the District Court granted the Plaintiffs' request for summary judgment for those post-compliant violations that constitute continuing violations under both the CWA and SMCRA. The Court denied without prejudice those portions of the plaintiffs' motion seeking declaratory and injunctive relief pending a final determination of the nature and extent of the alleged violations.

On April 26, 2010, the Court ordered that the Plaintiffs' motion for summary judgment as to Counts 1, 3, and 5 under the CWA be granted for 295 violations of daily maximum effluent limitations and 301 violations of average monthly effluent limitations relating to manganese, iron, aluminum and total suspended solids as identified in Exhibit 3, and the plaintiffs' motion for summary judgment as to Counts 1, 3, and 5 be denied in all other respects.

On June 1, 2010, Counsel contacted the Court to discuss the possibility of continuing the discovery deadlines in order to facilitate the parties' efforts to settle this matter. On June 2, 2010, the Court issued an Order modifying the scheduling order by setting forth revised deadlines for discovery, expert witnesses, mediation and settlement meeting, final settlement conference, and trial.

On July 12, 2010, the parties filed a joint motion announcing that they have reached an agreement in principle to settle all claims in this case, and intend to present a proposed consent decree to the Court by September 15, 2010.

On September 15, the Plaintiffs' lodged a proposed Consent Decree with the Court and the U.S. Department of Justice (DOJ). On November 1, 2010, the DOJ issued a notice of no objection to entry of the Consent Decree. On November 18, 2010, the Court issued a Memorandum Opinion and Order finding that the proposed Consent Decree is fair, adequate, and reasonable. On the same day, Judge Copenhaver signed the 38-page Consent Decree to end this litigation.

d. Citizen Suit Against Apogee Concerning Selenium

Ohio Valley Environmental Coalition, Inc., and West Virginia Highlands Conservancy, Inc. v. Apogee Coal Company, LLC, and Hobet Mining, LLC, Civil Action No. 3:07-0413, (S.D. W.Va.).

On September 1, 2010, U.S. District Court Judge Chambers issued an Order finding Patriot Coal Company in contempt of court for failing to comply with a consent decree that required the company to treat selenium at its Ruffner and Hobet 21 Mines in West Virginia. The Court ordered the company to install a Fluidized Bed Reactor (FBR) system at the Ruffner Mine and bring its effluent limits for selenium into compliance by March 1, 2013, and submit a treatment plan for Hobet 21 by October 1, 2010, and bring its effluent limits for selenium into compliance by May 1, 2013. In addition, the company is to provide the

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Court a \$45 million letter of credit to ensure compliance with the Order. Nominees to serve as a special master in this matter are to be submitted to the Court by September 7, 2010. Patriot Coal Company estimates that it will cost \$50 million in capital expenditures and about \$3 million in annual operating expenditures to comply with the Order.

On October 8, 2010, the District Court issued a memorandum opinion and order supporting its earlier decision finding Apogee in contempt. However, the Court did issue a separate order granting Apogee a two and one-half year extension of the deadline for compliance, discretion to choose the treatment system and appointment of a special master. On November 5, 2010, the Court issued an Order confirming the special master and directing him to report his recommendations as outlined by the Court.

On November 8, 2010, Apogee filed its first monthly status report for designing and constructing the treatment system with the Court. On December 8, 2010, Apogee filed its second monthly status report. On December 23, 2010, the Court filed a proposed order granting Apogee's motion to file documents under seal. If accepted, the documents will not be disseminated to anyone except upon motion and decision of the Court.

On January 10, 2011, Apogee filed its third monthly status report with the Court. The company has contracted with CH2M Hill who has installed a FBR and a Moving Bed Biological Reactor (MBBR) to treat selenium and to monitor flow at three outfalls. The company plans to complete all test runs by February 18, and have the final pilot plant report completed by March 17.

On January 31, the Court issued a Memorandum Opinion and Order granting the motion to seal materials and a motion granting a protective order regarding confidential information and documents. On February 3, in response to an objection filed by the defendant to the order confirming the Special Master, the Court issued an order directing the plaintiffs to file a response by February 7. On February 7, the Plaintiffs filed an objection to Apogee's proposal regarding the purgeable fine system that had been recommended by the Special Master earlier. According to the Plaintiffs, Apogee proposes to cut the purgeable fine in half.

On February 8, Apogee filed its fourth monthly status report. The FBR and MBBR units are operating continuously. The system operated at 10 gpm and was running at 12 gpm at the end of January and into February. Flow monitoring is continuing and milestones received from the Special Master have been met. The SMCRA permit is in the process of being renewed. Other permit modifications will be submitted in mid-February.

On February 14, the Court issued an Order adopting the Special Master's proposal for a system for purgeable fines as described on January 21 and further clarified on February 8.

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On March 8, Apogee filed its Fifth Monthly Status Report with the Court. Due to various issues, the company ran the pilot plant through February, and the final pilot plant report is to be completed by March 31.

On April 8, Apogee filed its Sixth Monthly Status Report with the Court. Apogee also filed attachments and revisions to those attachments on April 11 and 12. The pilot project was completed and the FBR unit dismantled on February 28. Preliminary engineering on the centralized selenium treatment plant was completed and the required permit applications to build it have been submitted to WVDEP for approval. Final engineering services are on schedule, and a site preparation bid package is to be submitted to bidders by April 30. Site preparation is to begin in July.

On May 23, 2011, Apogee filed its Seventh Monthly Status Report with the Court. The required IBR was approved by WVDEP on May 12. The NPDES modification is under review by WVDEP, and the Air Quality Permit was submitted on February 28.

On June 8, Apogee filed its Eighth Monthly Status Report with the Court. The initial civil bid was awarded. This portion of the project will prepare the plant site area for installation of the tanks, buildings, and drainage structures.

On July 8, 2011, Apogee filed its Ninth Monthly Status Report. Construction on the treatment plant was initiated on June 20. All sediment control structures have been installed, certified and approved. Site preparation work is ongoing. Apogee has spent \$4.4 million on the project to date. Apogee now estimates that the total project will cost \$53.2 million.

e. Citizen Suit Against ICG Over Selenium

Sierra Club et al. v. ICG Eastern LLC, Civil Action No. 2:11-cv-00023-ICB, (N.D. W.Va.).

On March 23, 2011, the Sierra Club, the Ohio Valley Environmental Coalition, and the West Virginia Highlands Conservancy (Sierra Club et al.) filed a complaint in U.S. District Court for the Northern District of West Virginia for declaratory judgment and injunctive relief and for civil penalties against ICG Eastern, LLC (ICG) for violations of the CWA and the SMCRA at its Knight-Ink No. 1 Surface Mine in Webster County. The Sierra Club et al. allege that ICG discharged and continues to discharge selenium into water of the United States in violation of Section 301 of the CWA and of the conditions of its NPDES permit. The Plaintiffs further allege that ICG's discharges of selenium into waters adjacent to its mine site violate the performance standards under SMCRA and the terms and conditions of its surface mining permit.

The WVDEP issued an order in April 2007 requiring ICG to commence construction of selenium treatment facilities by October 5, 2008, and to complete installation of the

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facilities by April 5, 2010. ICG failed to construct the facilities and asked WVDEP to extend its selenium compliance deadline to July 1, 2012. In March 2010 and again in May 2010, the EPA formally objected to an extension of ICG's selenium compliance deadline. According to the Plaintiffs, discharge monitoring reports submitted by ICG show that the company had discharged selenium in excess of its final effluent limitations on at least 88 occasions between March 2008 and January 1, 2011. The WVDEP filed an action against ICG in Webster County Circuit Court on June 11, 2010. In an attempt to resolve the action, WVDEP released a proposed Consent Decree that gives ICG until December 1, 2012, to comply with its selenium limits. The Plaintiffs requested the Court enter an Order requiring ICG to immediately comply with the terms and conditions of its NPDES permit, its SMCRA permit, and to pay appropriate civil penalties up to \$37,500 per day for each CWA violation that occurred on or after January 12, 2009, and up to \$32,500 per day for each CWA violation that occurred prior to January 12, 2009.

On April 25, 2011, ICG filed a motion and memorandum in support of the motion to dismiss the complaint for lack of jurisdiction. According to ICG, because WVDEP commenced civil enforcement action prior to the Plaintiffs' complaint and is diligently prosecuting that enforcement action, the Court lacks jurisdiction over the Plaintiffs' claims under the CWA and SMCRA. Therefore, the suit is precluded and must be dismissed.

On May 12, 2011, the Plaintiffs filed a memorandum in response to ICG's motion and requested that the Court not dismiss the case and set an evidentiary hearing to address the disputed fact of whether the action is a diligent prosecution. On May 23, 2011, the Defendant filed a reply in support of its motion to dismiss the complaint. ICG maintains that WVDEP is diligently prosecuting this case and the proposed Consent Decree is consistent with and will require compliance with the Act.

On June 29, 2011, the District Court issued a Memorandum Opinion and Order. The Court ruled that both the CWA and SMCRA bar citizens from suing if the federal or state government has already commenced, and is diligently prosecuting an enforcement action to require compliance with the law. The Court found that the Draft Consent Decree negotiated by the WVDEP and the Defendant is capable of requiring compliance by imposing a meaningful daily fine for any violations and compliance with interim limitations. The Court found that the WVDEP has not acted in bad faith by using the State court proceeding to preclude real enforcement action against the Defendant. Finally, because there is no basis upon which to conclude that WVDEP's prosecution of the Defendant for its effluent limitation violations is non-diligent, the Court held that the Plaintiffs' citizen suit as to its first and third claims for relief is barred by statute. The Court found that the Plaintiffs' second claim for relief is not included in WVDEP's ongoing enforcement and is therefore, not subject to the statutory bar concerning diligent prosecution. However, the Court held that the second claim must be dismissed as moot, because there is little reason to believe that any of the Defendant's violations related to the installation of treatment facilities will continue in the sense that they will not be cured even

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after the remedial plan imposed by the Consent Decree has been fully implemented in accordance with reasonable timetables. For these reasons, the Court granted the Defendant's motion to dismiss the action and ordered it stricken from the active docket.

f. Citizen Suit Against Four West Virginia Coal Companies for Selenium Discharges

Ohio Valley Environmental Coalition, Inc., the West Virginia Highlands Conservancy, Inc. and the Sierra Club v. Patriot Coal Corporation, Apogee Coal Company, LLC, Catenary Coal Company, LLC, and Hobet Mining, LLC, Civil Action No. 3:11-cv-115, (S.D. W.Va.).

On February 18, 2011, the Ohio Valley Environmental Coalition (OVEC et al.) filed a complaint for declaratory and injunctive relief and for civil penalties against Patriot Coal Corporation and three other subsidiaries (Patriot) in the U.S. District Court for the Southern District of West Virginia at Huntington. The Plaintiffs allege that the Defendants have discharged and continue to discharge selenium into waters of the United States in violation of Section 301 of the CWA.

According to Patriot Coal, the complaint should be dismissed because there are no facts in the complaint that can be linked to Patriot Coal; parallel enforcement actions are pending in other State Courts; SMCRA-based claims arise under State law and deprive the Court of jurisdiction; the Plaintiffs lack standing; and WVDEP is a required party who cannot be joined in this action.

On April 14, the Plaintiffs filed an amended complaint for declaratory and injunctive relief and for civil penalties. Along with the amended complaint, the Plaintiffs submitted a memorandum of understanding that was agreed to by the parties in October 2010 involving other cases, a proposed schedule involving this case, and a funding proposal for the West Virginia University College of Law Land Use and Sustainable Development Law Clinic.

On April 15, the Plaintiffs filed a response in opposition to the Defendant's motion to dismiss the case. On April 15, the Court issued an Order directing the Defendants to respond to the Plaintiffs' motion for order and notice by April 22. On April 21, the Defendants asked the Court to deny the Plaintiffs' motion of April 8, and issue an order granting them until May 2, to reply to the Plaintiffs' first amended complaint.

On May 2, the Defendants filed a motion and memorandum in support of the motion to dismiss the Plaintiff's first amended complaint. The Defendants maintain that the Plaintiffs cannot state a claim under the CWA or SMCRA because of parallel enforcement actions pending in other State Circuit Courts that involve identical claims brought by WVDEP and which are being diligently prosecuted. Because the claims arise under State law, the Court lacks jurisdiction and they must be dismissed.

On May 20, the Plaintiffs filed a response in opposition to the Defendants' motion to dismiss their first amended complaint.

On June 6, 2011, the Defendants filed a reply to the Plaintiffs' memorandum in opposition to their motion to dismiss the first amended complaint. According to the Defendants, the State's administrative and judicial actions constitute diligent prosecution; the existing consent decree constitutes *res judicata*; the Plaintiffs have failed to adequately plead standing; no claims arise under SMCRA that present the Court with subject matter jurisdiction; the WVDEP is a required party and it cannot be joined; and the Plaintiffs' attempted use of estoppels is impermissible.

VII. Regulatory Program Problems and Issues

A. Inventory of Active Permits with AMD

A WVDEP and OSM team was established in 2006 to update information regarding water treatment activities on active permits in the State. As previously discussed, the team identified approximately 370 active, bonded permits in the State with appreciable water treatment costs. However, the team was unable to complete the project because of its inability to complete five tasks. The remaining tasks relate to approximately 190 permits that require additional investigation to obtain adequate flow and quality data. As discussed in Subsection VII.J, work on this project is ongoing, but other efforts have delayed the completion of this project. Because an AMD inventory is not a program requirement, no official action plan meeting the formal standards of REG-23 has been developed. However, OSM and WVDEP anticipate that the efforts to resolve issues with water quantity and quality prediction in relation to underground mines will resolve many of the concerns.

B. Special Reclamation of Sites with Third Party Liabilities

For more than nine years, WVDEP and OSM have worked together to improve the accuracy of the inventory of revoked permanent program permits, especially those that continue to generate AMD discharges. During this effort, an issue was identified concerning instances where third parties (identified as someone other than the Permittee or the State Regulatory Authority) assumed the reclamation responsibility at a revoked site and may not have met the reclamation obligations as required by the approved State program.

The WVDEP and OSM identified 42 permits as potentially having a third party obligated to complete land and/or water reclamation. These permits were file reviewed during 2006 to determine if reclamation had been accomplished. From that study, the reviewers were not able to determine the adequacy or completeness of reclamation for 27 of the 42 permits. In addition, several procedural issues were identified. The 27 permits became the subject of further analysis during EY 2007, but other assignments within OSM have delayed

completion of this study. Because this review is still not complete, it will be continued into the next evaluation year.

C. Slurry Impoundment Basin Breakthrough Potential

In February 2001, OSM and WVDEP began a technical review of coal refuse impoundments to evaluate the potential for coal slurry breakthrough from impoundment basins into active or abandoned underground mine workings. Specifically, the review considered the WVDEP permit review process, with regard to breakthrough potential. Seven impoundments were evaluated in the initial study. This study was completed in 2005 and reported in the 2005 Annual Evaluation Report.



Coal Slurry Impoundment

Upon completion of the initial study, the team felt additional study was warranted, particularly with regard to geotechnical investigations. Therefore, a second phase of the study was undertaken covering three additional, recently permitted impoundments. Construction was underway at all of these impoundments. During EY 2008, the evaluation was completed and a final summary report was submitted to the WVDEP. This study was reported in the 2008 Annual Evaluation Report.

A third phase of the study, involving 15 sites, was begun in EY 2009. However, during the review, the OSM team determined that several issues merited separate discussion to

ensure OSM was using the best science and engineering principles in evaluating West Virginia and potentially other States. OSM elected to author a technical position paper covering these issues and seek peer review prior to finalizing a report on the 15 sites. A peer review of the technical position paper was conducted during the evaluation year and final modifications to the paper were being completed at the time this annual report was being prepared. Once this effort is completed, the reviewers will continue the oversight of West Virginia's program.

D. Storm Water Runoff Analysis

In 2009, OSM published an oversight report which noted improvements in the field control of runoff but noted several concerns with the Storm Water Runoff Analysis (SWROA) modeling. In response, WVDEP agreed to do additional training with assistance from OSM, host an industry training and monitor offsite impacts to determine if there were any cause to refine the regulatory or procedural aspects of SWROA. This year OSM followed-up on that study and was advised that the training of internal staff had been done without OSM's assistance but no industry training was held nor was there any special effort to review offsite impacts for SWROA related problems.

As described in Section VI.R., in its latest study, OSM again concludes that the SWROA process has generally reduced offsite impacts but that occasional deficiencies in the process can contribute to significant offsite damage. This year's evaluation also demonstrates WVDEP is not consistently requesting revisions to the SWROA even when the mine plan changes or offsite damage has actually occurred.

WVDEP has advised OSM of several actions it is taking to address these concerns including improvements in the SWROA application, certification and revision process, as well as identifying the need to conduct and document random reviews of operations after storm events. These changes will be implemented within the next six months. WVDEP will also conduct in-house and industry training to accomplish the above mentioned tasks and will train WVDEP inspection and enforcement staff to ensure that site inspections include review of monitoring plans and indicators related to SWROA effectiveness, such as stream scour, sedimentation and boulder movements.

E. Approximate Original Contour – A National Priority Review

As discussed in more detail in Section VI.B of this report, the OSM report on approximate original contour (AOC) in steep slopes as published in May 2010, noted that there were cases of differences between the grading plans approved in the permit and those measured in the field. As a result of this finding, the WVDEP agreed to require backfilling and grading certification improvements and better surveying controls to address the issue. OSM emphasized this process as part of its routine oversight inspections and found WVDEP is

following through with its agreed upon improvements. OSM will continue to emphasize AOC in its inspection process but no longer considers it an unresolved issue.

OSM and WVDEP also performed a study published in December 2010 in which AOC mining operations in non steep slope areas were evaluated. The regulations covering AOC in non steep slope areas are not as well defined as those for steep slope areas; however, the intent and definition of AOC, as included in the regulations, appeared to have been met at both of the study sites (one area mine and one contour mine). There are no action items from this report.

F. Acid Mine Drainage Prediction – Underground Mining and Expansions

During EY 2007, OSM and WVDEP completed a review of nine underground mining permits where acid mine drainage (AMD) had developed. The review was designed to determine whether AMD formation could have been predicted and properly addressed through more informed permitting considerations and decisions.

The review found that data could be used more consistently by State permit reviewers in predicting, preventing, or addressing AMD. The report also noted that revised CHIAS should be required with significant underground mine expansions. WVDEP agreed to take several actions to improve how AMD is addressed in the future. These include updating of the WVDEP CHIA Guidance and consideration of other recommendations of the CHIA Quality Assurance Committee comprised of representatives from OSM, the environmental and mining communities, and WVDEP.

During this evaluation year, WVDEP revised its CHIA Guidance, but that document has not been finalized or implemented. WVDEP and OSM also concurred on the basic outline and assignments for OSM assistance in the development of a guidance manual and training aimed at improving the predictions and monitoring of the hydrologic impacts of underground mining. OSM has initiated discussions with WVDEP on a potential Action Plan on concerns with the prediction and monitoring of the hydrologic impacts of underground mining.

G. Water Supply Replacement

As previously discussed, the State is requiring operators to replace water supplies impacted due to mining in a timely manner. However, several water supplies that were initially replaced later proved to be problematic. Some of the study recommendations included better information regarding alternative water supplies, improved complaint procedures, modification to permits once problems are identified, and escrow bonding when final water replacement exceeded 90 days. OSM and State officials met during the evaluation year to discuss this and other outstanding issues. WVDEP officials named a State field representative to a joint state and federal team to further evaluate and

implement the recommendations regarding water supply replacement, but that team did not meet during the evaluation year. Because the State is meeting its program requirements on water replacement, OSM is not considering the desired improvements as items meriting a formal action plan under REG-23.

H. Bond Release

As discussed in Section V.C, this year's study revealed that State procedures sometimes allowed the public comment period to expire prior to the bond release application being on file with the State. The State agreed to change these procedures immediately so no action plan is required.

I. Bond Forfeiture Inspections

As further discussed in Subsection VI.I, bond forfeiture sites must be inspected on a monthly basis to assess all performance standards and to ensure compliance with the revoked permit, unless the inspection frequency has been reduced in accordance with the approved State program. The State has revised its bond forfeiture reclamation inspection forms, but the State must continue to conduct monthly inspections at bond forfeiture sites or comply with the criteria at CSR 38-2-20.1.a.6 before it can reduce inspection frequency at bond forfeiture sites within the State. Failure to implement changes in the program to allow for fewer inspections on bond forfeiture sites resulted in WVDEP not meeting its required inspection frequency. During the upcoming year, OSM will continue to work with the State on this issue but does not find that the issue rises to the level of requiring an Action Plan under REG-23.

J. State Staffing

As discussed in Subsection VI.O., the State's regulatory staff totals 266.05 FTE positions, but there are 33 vacancies. WVDEP's total regulatory staff last year was 268.05 FTE positions, and it had 33 vacancies. Most of the existing vacancies are in permitting or inspection and enforcement. WVDEP increased its hiring efforts during the past year, but given the number of staff that is retiring, it has made little progress in eliminating its backlog of vacancies. OSM will continue working with WVDEP to fill vacant positions and to identify other sources of revenue to fund the State's regulatory program. Given anticipated declines in future coal production, State officials only intend to fill vacant positions and are hesitant to increase staffing at this time.

K. Incidental Boundary Revision

As discussed in more detail in Subsection VI.G., an earlier review of incidental boundary revision (IBR) found that, except in some instances, the State was properly implementing its IBR requirements. Most of the issues identified appear to be the result of an IBR policy

that was issued by the State and included in its Permitting Handbook. Some of those IBR provisions are part of a program amendment that is still under review by OSM. Prior to developing an action plan to address the issues raised by the study, WVDEP and OSM agreed to complete processing the program amendment to determine what issues may remain. Because the State's program amendment is still under review, this issue will be continued into next year.

L. West Virginia's Alternative Bonding System

As discussed in Subsection VI.A. of this report, this study was done as part of a national priority review mandated by OSM to evaluate State bonding programs. While West Virginia has made significant improvements in its ABS in recent years, the State has failed to establish a mechanism that will ensure long-term funding of pollutorial discharges from bond forfeiture sites within the State. A 2009 State actuarial review shows that West Virginia's ABS will remain solvent until around 2038, but then it will go into the red largely because of water treatment. A more recent State actuarial report shows that the problem is worse, and the State's ABS needs additional revenue even sooner. West Virginia has recognized this concern and is taking a series of actions toward finding a more permanent solution. This includes a new actuarial report to resolve differences between the last two reports, a review of surrounding State's methodologies, appointment of an economist to the State's advisory council, a new coal forecast, and a report on the rate at which pollution and associated costs may be expected to attenuate over time. In addition, any decisions on the adequacy of the Special Reclamation Fund are dependent on the outcome of decisions related to the litigation related to NPDES permits for forfeiture sites. OSM finds these activities demonstrate the State is following its approved program, which established the Special Reclamation Fund Advisory Council to help ensure the fund remains solvent and they are doing that while searching for a more permanent solution.

VIII. OSM Assistance – Regulatory Program

A. Underground Mine Monitoring – Technical Guidance Manual

Underground mining can sometimes result in adverse effects to the hydrologic balance. Surface and ground water monitoring site locations and data provide information used to characterize the pre-mining hydrologic conditions, and determine the Probable Hydrologic Consequences of underground mining on hydrologic systems, potential stream loss, and water supply loss/contamination. The information can also be used to estimate postmining mine pool elevations and potential mine pool breakout locations.

A Guidance Manual will be prepared by a team comprised of staff from OSM and WVDMR to promote consistency and efficiency in the preparation and review of the hydrologic portions of underground mine applications, including SMCRA, NPDES and Underground

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Injection Control permit applications. The use of a Guidance Manual by WVDEP staff should result in enhanced permitting considerations and decisions by the State.

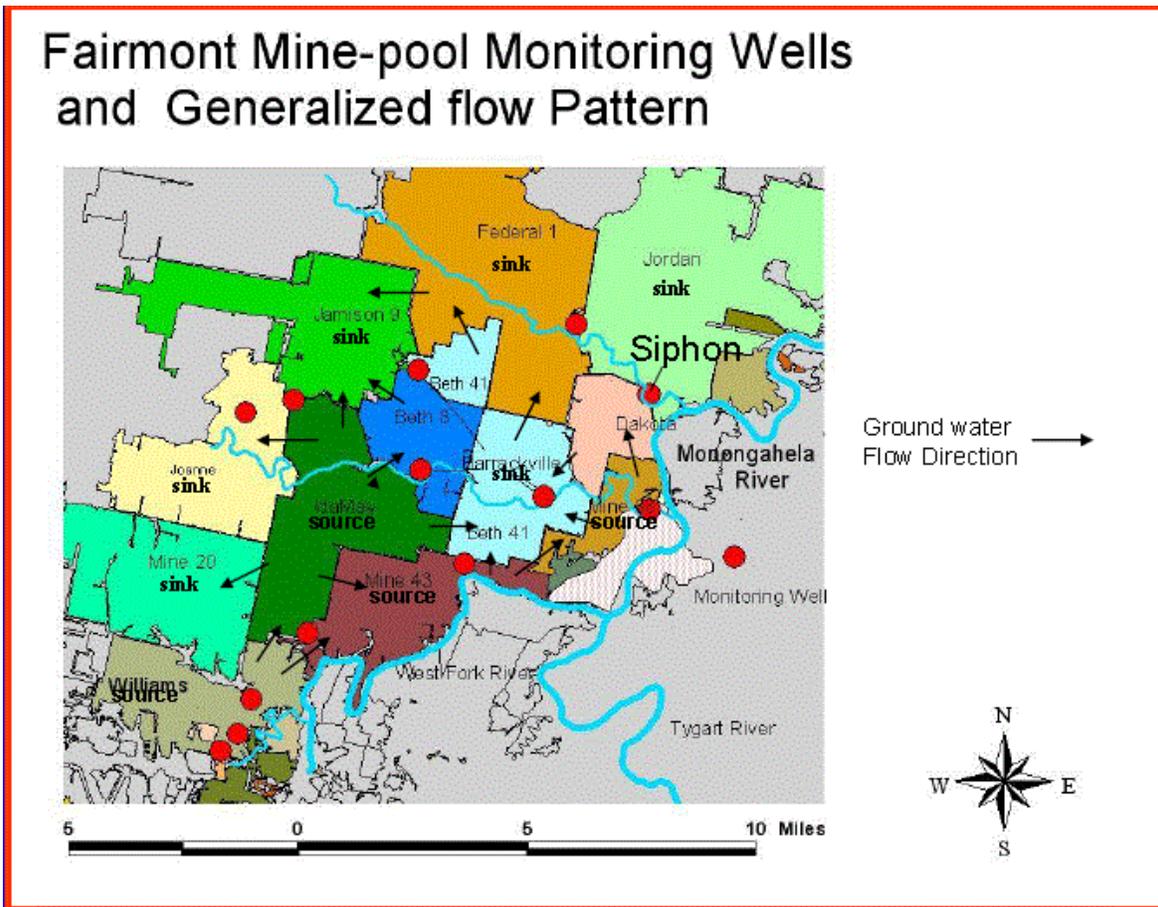
Team members are assigned sections of the manual to write so that WVDEP permit reviewers can utilize this resource as an aid in the WVDEP permit review process. This Guidance Manual will help ensure that relevant monitoring sites can provide information relative to the determination of any probable hydrologic impacts from underground mining. The elements of the Guidance Manual will generally follow the provisions in the WVDNR permit application, Geologic Handbook, and the State's approved program.

Once the Guidance Manual is completed, training for WVDEP, industry, and the environmental communities should commence in EY 2012.

B. Underground Mine Hydrology/Fairmont and Northern Mine Pool Research

Fairmont Mine Pool

OSM has been monitoring water levels and quality in a complex of flooded underground mines in Marion County, West Virginia, referred to as the "Fairmont mine pool," which have a potential for discharge into the Monongahela River and tributaries. The mine pool consists of about 40,000 acres of abandoned, fully flooded underground mines located in the Pittsburgh coal beds that have been flooding since the 1990's and are hydrologically connected. Water level withdrawal from the mine pool is at a rate of about 1,500 gallons per minute at a siphon, which is located in the Paw Paw Creek Watershed. It has been concluded that mine pool head in these flooded mines can be controlled from a single withdrawal (pump) over distance. Without this control, the mine pool would discharge water containing elevated concentrations of iron, sulfate and dissolved solids into the Monongahela River and several tributaries. Consol Energy, Inc. is responsible for controlling the mine pool elevation under the terms of a CWA permit. OSM collects water level data from ten wells throughout the mine pool area on a quarterly basis, and summarizes and reports this data electronically to the WVDEP. Three wells are instrumented with transducers to provide a detailed record of water levels in the mine pool.



Barrier pillars between adjacent mines are enough to circulate significant quantities of water between mines, but they also control head distribution and flow within the mine pool. The mine pool has been maintained below “breakout” or discharge elevation. Monitoring continues because active mining is still occurring in some nearby mines, pumping rates change, and flooding of the “Morgantown pool” immediately to the north is occurring. Water quality is monitored in a few wells on a periodic basis. The mine pool is not acidic, but it does contain iron concentrations exceeding discharge standards.

Mine Pool Recharge Study

OSM proposed a study in 2007 of the geochemistry of mine roof strata and recharge water of underground mines in northern West Virginia. The purpose of the study was to determine how useful an analysis of baseline recharge is as a predictive tool for mine pool quality. In consultation with WVDEP, a small number of underground mines in the Upper Freeport and Pittsburgh coal beds were selected for characterization by OSM. Initial data retrieval and review was completed for several mines. However, the project did not progress much during the EY 2011 evaluation period due to other assignments. During the summer of 2011, OSM hired a summer student to work on the ground water

recharge/mine-pool study and the results of that work will be reported in the EY 2012 report.

C. Lexington Coal Company/Appalachian Fuels, LLC

Lexington Coal Company

As previously reported, Horizon Natural Resources Company (Horizon) filed for Chapter 11 bankruptcy protection in November 2002, resulting in the largest coal company bankruptcy in U.S. history. In August 2004, the U.S. Bankruptcy Court in Kentucky approved the company's reorganization plan which included the formation of Lexington Coal Company (LCC).

LCC's primary responsibility is to complete land reclamation on the remaining permits and develop plans to provide for the treatment of any pollutional discharges that may be present. OSM and the State regulatory authorities are continuing to monitor the progress of LCC in completing the reclamation of these remaining sites.

As mentioned in EY 2008, there were 16 sites, involving 13 permits, in West Virginia that required land reclamation by LCC. LCC was actively reclaiming all of the permits that were at various stages of completion. In addition, it was believed that two of the permits would require water treatment.

During EY 2009, one surface mining permit and two underground mining permits had been completely reclaimed by LCC, and the State had approved final bond release for those sites. Ten other permits were at various stages of completion by LCC.

During EY 2010, one surface mining permit was completely released by the State. Two underground mining permits and two surface mining permits were classified as active by the State. Land reclamation had been completed by LCC, but it was determined that these four permits would require long-term water treatment. LCC agreed to establish water treatment systems at three sites to accommodate these four permits. During EY 2010, one water treatment trust fund agreement was established by LCC for the one site that included the two underground mining permits. At the end of the reporting period, LCC was in the process of negotiating trust fund agreements for the two other surface mining permits. During EY 2010, one surface mining permit had been backfilled, and WVDEP has approved Phase I bond release for it. Three surface mining permits had been backfilled and revegetated by LCC, and the State had approved Phase II bond release for these sites. Finally, the remaining surface mining permit, which involves five bonding increments, had been backfilled and parts of it were revegetated. The State had approved Phase I or Phase II bond release for all or portions of the increments.

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In addition, WVDEP promulgated emergency rules authorizing it to enter trust fund agreements on December 16, 2009, but those rules were never implemented, because it was later determined that the State had sufficient authority to enter trust fund agreements under its existing regulations. As mentioned above, WVDEP entered one trust fund agreement with LCC during EY 2010. As discussed in Subsection VII.C.5, in May 2011, WVDEP submitted to OSM for approval Senate Bill 121 which authorizes WVDEP to modify its Surface Mining Reclamation Regulations by codifying the emergency trust fund rule filed on December 2009 as legislative rules. That amendment is still under review by OSM.

During EY 2011, WVDEP continued monitoring LCC's reclamation efforts at the remaining nine permits. During the review period, OSM assisted the State in drafting language for the remaining two trust fund agreement to ensure that the trust fund amounts would be sufficient to provide for long-term water treatment at the sites. In addition, OSM continued to assist WVDEP in evaluating site conditions at LCC's two remaining surface mining permits that required the establishment of trust fund agreements. During the evaluation year, WVDEP and LCC completed and executed the trust fund agreements for the remaining two sites. In addition, a bridge deck was replaced at one site. All four sites requiring water treatment have been reclaimed, but the chemical treatment of all water discharges from those sites will continue indefinitely due to the creation of the trust funds.

During EY 2011, LCC continued land reclamation efforts on five sites. Two of the sites had been revegetated and had received Phase II bond release. During the evaluation year, LCC applied for final bond release for these sites. Another site had been backfilled and had Phase I bond release approval. During the review period, LCC removed ditches and planted trees. LCC plans to apply for Phase II bond release during the upcoming year. Another site had been revegetated and had received Phase II bond release. LCC plans to apply for Phase III bond release during the upcoming year. Finally, the remaining surface mining permit, which involves five bonding increments, had been backfilled and parts of it were revegetated. The State had approved Phase I or Phase II bond release for all or portions of the increments. During EY 2011, LCC planted trees on one increment, and WVDEP approved Phase II bond release for Increments 4 and 5 and Phase III bond release for Increments 1, 2, and 3. Final bond release for the entire permit is anticipated during the upcoming year.

Appalachian Fuels, LLC

On May 26, 2009, Appalachian Holding Company and its subsidiaries filed notice with a Kentucky District Court of its intention to sell the business assets of its coal holdings. On June 11, 2009, three creditors filed an involuntarily Chapter 7 bankruptcy petition against Appalachian Fuels, LLC (Appalachian Fuels). On July 2, 2009, a Federal bankruptcy judge agreed to convert the case to a Chapter 11 bankruptcy, and appointed a Chief Restructuring Officer.

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In 2009, Appalachian Holding Company and its subsidiaries held mining permits in Illinois, Colorado, Kentucky and West Virginia. Appalachian Fuels and its affiliates had 43 permits and prospecting approvals in West Virginia at the end of the evaluation period. Those permits were at various stages of completion and involved approximately 7,828 acres.

During EY 2010, Appalachian Fuels and its affiliates retained responsibility for eleven surface mining permits and six prospecting approvals within the State. Three of the surface mining permits had been backfilled, and they had received Phase I bond release from the State. Another surface mining permit had received inactive status approval. WVDEP had released or transferred twenty six other Appalachian Fuels' permits or prospecting approvals to other parties during the evaluation period.

During EY 2011, Appalachian Fuels' six prospecting approvals, involving approximately 35 acres, were still active, but some were in reclamation. The company submitted renewal letters to WVDEP for five of the prospecting areas. Of the eleven permits, seven were held by Appalachian Fuels and the remaining four were held by its affiliates, Kanawha Development Corporation and Belva Coal Company. One surface mining permit totaling 390 acres was revoked by WVDEP on July 25, 2011. A company has expressed an interest in purchasing two of Appalachian Fuels active permits, one of which was renewed during the review period. It is anticipated that the remaining four Appalachian Fuels' permits that are in various stages of reclamation may be transferred to another company. The one permit held by Belva Coal Company had been revoked by the State, but another company is interested in acquiring it. In addition, Kanawha Development Corporation was ordered by WVDEP during the review period to show cause why its remaining three permits should not be revoked by the State. During the upcoming year, WVDEP and OSM will continue to monitor these permits and prospecting approvals to ensure that they are either re-permitted by other operators or the sites are reclaimed and properly released.

D. Snap Creek Flooding 2 (S-5006-04)

The WVDEP requested technical assistance to evaluate and determine the cause of flooding that adversely impacted an area of the town of Man, West Virginia. From this review, it was determined that the cause of the flooding/debris flow was directly attributed to the Snap Creek Mining operation permit S-5006-04. Specifically, the problem was associated with the improper installation of the SWROA structures, and failure to consider and prevent erosion and landslides on the steep undisturbed slopes directly below discharge points.

The review found that some of the assumptions and modeling used in the original SWROA were questionable, but also determined the damage would likely have been reduced if the projected plans had been closely followed. Additionally, more attention was needed on the discharge points from the basins over these steep slopes (66%) to ensure an appropriate transition into stabilized channels to prevent additional erosion, landslides or severe channelization. OSM recommended that the State require a revised SWROA and that the

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restoration of the damaged stream channel be designed and supervised by a stream restoration specialist.



Flood Deposition in South Man, West Virginia

OSM personnel also provided expert witness testimony during the West Virginia Surface Mine Board hearing concerning this incident. The report can be found on the CHFO website at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>.

E. Technical Training – Technical Information Processing System and National Technical Training Program

OSM conducts classroom style courses throughout the year regarding the latest technology related to active and abandoned mine regulation. These courses are administered through OSM's National Technical Training Program (NTTP) and Technical Information Processing System (TIPS). During EY 2011, WVDEP sent 47 regulatory staff to NTTP courses and four regulatory staff to TIPS courses. In addition, OSM makes online training courses available for various subjects through its TIPS training program. During EY 2011, WVDEP staff participated in eight of these online courses.

F. Interagency Coordination

WVDEP has hosted, and OSM has participated in all of the monthly meetings to discuss pending permits and requirements with the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency. This includes ongoing efforts to build models for determining hydrologic impacts.

IX. Abandoned Mine Lands Reclamation Program

A. General

The mission of the Abandoned Mine Land Reclamation Program (AMLR) is to reclaim AML sites by abating hazards, reducing or mitigating the adverse effects of past mining, and restoring adversely affected lands and water to beneficial uses. The AMLR is successfully carrying out this mission by addressing the most serious of the health and safety issues created by these AML problems, but there are many more problems remaining that need to be addressed and ultimately abated.

1. General Program Information

AMLR conducts all of the AML reclamation in West Virginia. The OSM has approved four primary AML components:

- The regular construction program abates high priority, non-emergency problems caused by past mining practices. The OSM approved the regular abandoned mined lands construction program on February 23, 1981.
- The emergency program abates emergency problems caused by past coal mining practices. The OSM approved the emergency program section on August 26, 1988.
- Water supply provisions allow the State to repair or replace water supplies when the damage from past mining practices occurred primarily before August 3, 1977. The OSM approved this program provision on July 25, 1990.
- The AMD set-aside program allows the State to use a percentage of its annual grant allocation to reclaim watersheds impacted by AMD. OSM originally approved this program component on March 26, 1993, and limited the amount of the “set-aside” to ten percent. The 2006 Reauthorization of the AML program allowed the State to increase the amount of funding in the set-aside for AMD treatment and abatement to thirty percent of its annual grant. No changes in the approved program as a result of reauthorization have been approved yet.

The West Virginia AMLR program had another successful and busy year, beginning and completing more projects in EY 2011 than in any previous time in recent years. It should be noted that the large increase in project development through project completion has been accomplished without an increase in personnel.

2. Abandoned Mine Land Inventory System Update

During the majority of EY 2011, the electronic version of the Abandoned Mine Land Inventory System (e-AMLIS) was under development by OSM, and information could not be added to the system. AMLR staff continued to develop Problem Area Description (PAD) forms for inclusion into the Abandoned Mine Land Inventory System (AMLIS), but could not enter the information into the system until May 2011. Consequently, a large backlog of new or revised PAD forms existed, and information on completion data was also backlogged. AMLR staff worked diligently to update the system in May and June, adding or updating information on more than 120 AML project sites, although e-AMLIS was not fully functional.

B. Noteworthy Accomplishments

1. AML Inventory Modernization Effort

The West Virginia AMLR began modernization of their AML inventory in early 2011. The effort is focused on migrating the existing auto-cad map inventory to a geospatial inventory. This will provide a user-friendly digital inventory of the AML problems and improve the availability and access to geospatial information.

Improvements are currently being made to the existing inventory maps in order to provide greater detail for existing features and also provide additional AML site information that can be accessed from any computer. The existing inventory maps, consisting of U.S. Geological Survey topographic quadrangle maps with AML project sites identified on the map, are currently being migrated to a full-color portable data file format.

Work is currently underway to evaluate the information workflow of AML projects in order to establish the Geographic Information System (GIS) needs of the program and to determine the needed attributes and requirements of a new GIS inventory system for AML sites. This stage is scheduled to be completed by the end of September 2011.

2. AML Waterline Projects

Since 1992, when OSM authorized the states to use up to 30 percent of their annual grant funding for repair or replacement of water sources degraded by pre-law mining, the AMLR has been active in addressing these problems. The Water Supply Systems Advisory

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Committee (WSSAC), which is made up of representatives from numerous state and federal agencies and commissions, was formed to determine and select the most deserving projects for the limited funds available from the various agencies. One of the changes, as a result of the 2006 Reauthorization of the AML Program, was the elimination of the 30 percent limit for funding on water supply projects. With the elimination of the funding cap for waterlines in 2006, the AMLR, with the advice from the WSSAC, greatly increased the amount of funds and the number of proposed water supply projects to eligible properties throughout the State.

As a result of the publicity concerning the increased funding for waterline projects, the AMLR program received a substantial increase in applications for new waterline projects. AMLR has eliminated the application backlog that was created by the increased interest and is initiating feasibility studies as soon as applications are received. Feasibility studies have been initiated or completed for 13 applications this evaluation year. The current list of eligible AML waterline projects consists of 45 projects with a total estimated cost of \$134 million with the AMLR share accounting for \$100 million of this total.

Six new waterline projects were awarded during the evaluation year that extended or improved service to 700 customers. At one point during this evaluation year, the AMLR program had 17 waterline projects under construction with an AML funding commitment in excess of \$43 million.

3. WebAML

In EY 2008, West Virginia AMLR began development of a new information database and management system known as WebAML. In April 2010, WebAML became a reality, allowing AML management and staff to store and manage data electronically. As with most new systems, WebAML continues to expand from the basic framework to include access to more data and programs. In EY 2011, changes to WebAML included the incorporation of waterline projects into the system, significant improvements to the planning and compliant modules, the ability to provide e-mail notifications to users when changes are made in the system, insertion of a checklist for project permit information, and the inclusion of additional data inspection reports. Web access, allowing OSM access to the system outside the WVDEP network, was a significant accomplishment. Improvements continue with the system, and work is continuing on the Emergency Program module, as well as developing a module for tracking maintenance, drilling and mapping activities.

4. Construction Activities – Authorizations to Proceed

Authorization to Proceed (ATP) allows the State to begin construction activities at a project site. AMLR requests this authorization after the conceptual design and the environmental reviews are complete at the site. This evaluation year, the AMLR had another active planning year, requesting and receiving 56 ATPs for non-emergency projects during the

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year. Over the past three years, the number of ATPs has significantly increased from previous years. See the chart below for a comparison:

Evaluation Year	Number of ATPs Issued
2011	56
2010	53
2009	62
2008	12
2007	16

5. Enhancement Projects

The AMLR encourages AML reclamation by utilizing the AML Enhancement Rule, allowing a Contractor to remove coal without a full Title V permit when that activity is to the benefit of the AML program and coal removal is in conjunction with the efforts necessary for the final reclamation of the site. The reclamation is conducted utilizing AML contracts, with all construction costs being borne by the contractor.

During EY 2011, the West Virginia AML Program continued work on two Enhancement Projects that were initiated in EY 2009, completing one of the two projects. The Stanley Subsidence II Enhancement Project involved the abatement of subsidence depressions, ranging from shallow surface depressions to large collapses, measuring 12 feet wide and 3 feet deep in Harrison County. The subsidence issues were addressed by excavating into the subsidence areas for coal removal and/or reclaiming some subsidence areas with the excess spoil material obtained during the excavation process. Approximately three acres were disturbed and reclaimed, and all work was completed in August 2010.

The second site, involving an underground mine fire burning in the abandoned workings of the 5-Block coal seam, is still on-going in Kanawha County. The project, called the Quincy (Workman) Mine Fire Enhancement Project, remains under construction and is addressing an underground mine fire and several mine portals located on a hillside above the community of Quincy. The ongoing work involves the excavation of both burning and non-burning coal in the abandoned workings. The contractor has extinguished the fire, excavated the marketable coal, and reclaimed the excavation pit in approximately 75 acres of the 100 acre work area. By addressing the mine fire, the contractor is also eliminating approximately 8,000 linear feet of highwall. A second phase of the project was recently initiated to address an additional 38 acres of burning coal located beneath a refuse area. The additional area is adjacent to the original burning area, but on the other side of the ridgeline.

C. OSM Technical Assistance

1. Technical Training

OSM conducts classroom style courses throughout the year in the latest technology related to active and abandoned mine regulation. These courses are administered through OSM's NTTP and TIPS. During EY 2011, the AMLR sent 19 people to NTTP courses and 7 individuals to TIPS courses. Although OSM makes online training courses available for various subjects through its TIPS training program, AMLR staff did not participate in any of these online courses during EY 2011.

2. Abbott Hollow Technical Assistance

In EY 2008, the WVDEP AML requested technical assistance for OSM to study the occurrence of AMD seeping into Fifteen Fork, a tributary of Cabin Creek, Kanawha County. A pattern of elevated metals occurring downstream of the Abbott Hollow refuse area stains and coats the Fifteenmile Fork streambed. Iron, manganese, and pH levels exceed instream water quality limits downstream of the refuse site; however, metals and acidity levels are in compliance upstream of Abbott Hollow. The pattern clearly indicates that the Abbott refuse discharge is causing significant loadings of acidity and metals resulting in adverse impacts to the receiving stream, Fifteenmile Fork.

A study was completed in EY 2010 that demonstrated that the Abbott Hollow AMD seepage and runoff has some post-SMCRA liabilities. OSM believes that both pre-and post-SMCRA placement of AMD acidic refuse materials in the Abbott Hollow refuse area caused and contributed to the generation of the AMD seeps. OSM concluded that Loadout LLC, the current permittee for the Abbott Hollow refuse facility, has the responsibility for the liabilities of Permit O-14-82, regardless of whether it is a result from pre-SMCRA or post-SMCRA placement and/or maintenance of refuse materials. The placement and/or maintenance of the refuse materials caused and/or contribute to the degraded water quality of Fifteenmile Fork, downstream of the refuse area. The OSM report concluded that there are some post-SMCRA liabilities and that the remediation of the AMD seeps are not eligible for AML remediation funding; however, some pre-SMCRA Abbott Hollow underground mine discharges are eligible.

A compensatory mitigation and stream enhancement plan for Fifteenmile Fork has been proposed by Alex Energy, Inc. In EY 2011, a joint state and federal meeting was held to further evaluate the mitigation plan and OSM's recommendations. As a result of that meeting, the OSM report was submitted to the U.S. Army Corps of Engineers (ACE) for their review and comment. No response from the ACE has been received and no further action has occurred.

D. Results of Enhancement and Performance Reviews

1. Staffing Analysis

This study was conducted to determine how the AMLR staffing levels and program accomplishments have changed with the increased funding as a result of the 2006 reauthorization of the AML program. The review team evaluated the level of AMLR staffing for the past ten years and compared the staffing levels with funding allocations and work accomplishments during the same time period. The study also compared staffing and funding levels to other AML state programs in the Appalachian Region. The study found that the West Virginia staffing levels are lower than many surrounding states, although funding is higher. West Virginia staffing levels have remained consistent; however, both funding and project activity have greatly increased. Projects are being planned, designed and constructed at a pace where grant funds are being spent properly and timely. The potential increase in staff turnover due to personnel reaching retirement eligibility creates a concern for the long term success and accountability for the AMLR program. OSM has plans to increase OSM oversight of the AML program. For more information, the report can be found on the website at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>.

2. Root Cause Analysis of Putney (Blue Creek) Dewatering Problems

OSM conducted a root cause analysis to determine why a fish kill occurred in Blue Creek, a tributary of the Elk River, during the dewatering of an underground mine pool by a contractor working for AMLR. The review found that the combination of the high volume and poor quality of the water discharging from the underground mine workings, in addition to the low flows of the receiving stream during the summer's dry period, resulted in the adverse impacts to the aquatic life and stream degradation.

The primary problem occurred when site conditions were found to be different than anticipated and actions were not immediately taken to address the changed conditions. Insufficient project inspection and field supervision were identified, which resulted in the allowable discharge of the poor quality mine water. Initial actions taken by AMLR included adding limestone sand to the receiving stream and treating the discharge with sodium hydroxide. Permanent changes were made to the project design to eliminate the high flow discharge by installing a mine seal, designed to flow only in the event that the mine becomes inundated and the water reaches the mine roof level. The AMLR has taken action to reduce the likelihood of a similar event from occurring in the future, including changes in personnel and policy that should result in better coordination between staff members and improved identification of potential problems. Recommendations are provided in the report to reduce the likelihood of similar events occurring in the future. For more information, the report can be found on the Charleston Field Office website at <http://www.arcc.osmre.gov/FOs/CHFO/WV/TS/WV-TS.shtm>.

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3. Drawdown Analysis

A drawdown analysis of the State's AMLR program was not conducted during this evaluation period. Chapter 5-55-20B of the FAM requires that a drawdown analysis be completed periodically. It is anticipated that a drawdown analysis of the AMLR program will be completed during the upcoming evaluation year.

4. Eligibility Review

In 2010, a review of the State's eligibility determination procedures was completed to verify that projects conducted by the AMLR program had obtained an eligibility determination from the Agency's legal counsel prior to initiation of work and the expenditure of the AML funds. A second phase of the study was proposed for EY 2011, but due to limited staff availability, that study was not initiated. It is anticipated that Phase 2 of the eligibility study will be conducted in EY 2012.

5. Regular AML Construction Program

As seen on the chart below, the AMLR program had another successful and busy year. AMLR has done an excellent job in planning and managing the workload in response to the increasing funding provided as a result of the 2006 Reauthorization as shown. In EY 2011, AMLR completed more projects than in any previous time in recent years. In addition to the information provided in the chart below, AMLR also initiated more project designs this year than in previous years, awarding design contracts for 46 projects and initiating 14 in-house designs in preparation for the next year's funding increase.

	Completed Designs	Construction Contracts Issued	Construction Contracts Complete
EY 2011	64	44	47
EY 2010	60	62	41
EY 2009	55	41	20
EY 2008	36	23	17
EY 2007	18	12	20

The actual accomplishments of the on-ground reclamation are easily accessible in AMLIS. AMLIS provides the units of problem areas reclaimed for all work completed.

During EY 2011, West Virginia reclaimed:

- 2.6 miles of clogged streams;
- 11,568 lineal feet of dangerous highwalls;
- 148 dangerous impoundments;
- 62 acres of dangerous piles and embankments;
- 26.7 acres of dangerous slides;
- 97 portals;
- 12.0 units of polluted water for agricultural and industrial use;
- 3,317 units of polluted water: human consumption;
- 6.1 acres of subsidence;
- 3.2 acres of surface burning;
- 90 vertical openings;

Significant accomplishments involved dewatering dangerous impoundments, backfilling highwalls, reclaiming dangerous refuse piles and embankments, sealing portals and vertical openings, and addressing dangerous landslides and drainage problems.

6. Acid Mine Drainage Abatement and Treatment Fund

West Virginia currently has over 500 streams covering 2,700 miles that are impaired due to acid mine drainage (AMD). SMCRA allows up to 30 percent of the state and historic coal share funding to be placed into AMD abatement and treatment fund, also known as the set-aside fund. This fund, including all interest, must be expended by the State for the abatement of the causes and treatment of the effects of AMD in a comprehensive manner within qualified hydrologic units affected by past coal mining practices.

This evaluation year, AMLR requested \$6,000,000 to be placed in the AMD set-aside, an increase over the \$4,000,000 requested the previous year. To date, West Virginia has requested and been granted \$32,308,619 for the set-aside program abatement work. A large portion of this funding is used for operation and maintenance of newly constructed AMD sites, as well as previously completed AMD projects.

During EY 2011, AMLR completed construction of two pilot projects that will treat AMD using in-stream dosing. The two completed project sites include Abram Creek of the North Branch of the Potomac River and Three Forks of the Tygart River. The Abram Creek project consists of three in-stream dosers and two limestone fines dump sites. This project was completed at a cost of \$879,277 and began treating water in August 2010. The Three Forks project consists of four in-stream dosers. This project was completed at a cost of \$750,491 and began treating water April of 2011.

Initial water quality sampling has shown promising results since completion of the projects. However, a full year of operation and monitoring is needed to fully evaluate the successfulness of the dosers. To date, the largest hurdle has been overcoming the natural variations due to seasonal fluctuations in flow which results in debris clogging the water intakes. This fluctuation has to be monitored and adjusted in order to produce optimal results. AMLR has committed to monitoring the results of these two projects before proceeding with further in-stream treatment projects. AMLR has worked both internally and with the State of Maryland to develop a modified intake to reduce the plugging potential.

7. Emergency Program

In Fiscal Year 2011, OSM made a significant revision to the emergency program throughout the country, eliminating the federal emergency program and changing the source of funding for all emergency programs. The revision required all states to utilize their state or historical share of the AML fund rather than the Federal share of the fund, reducing the money available for work on non-emergency projects. Like other State programs, the AMLR program expressed their disagreement with the change, but adjusted as necessary, to allow for the continued protection of West Virginia's citizens from the serious health and safety threats from AML problems. Minor changes were made to the process of declaring and authorizing emergencies.

During EY 2011, AMLR's program investigated 260 complaints, resulting in 34 emergency declarations. This compares with investigating 306 complaints, resulting in the declaration of 34 emergency projects in EY 2010, and 240 complaints, resulting in the declaration of 39 emergency projects in EY 2009. All emergency projects were addressed in a very timely manner, with most projects being abated within days or weeks of the ATP. Thirty three out of 34 emergency projects in EY 2011 were abated within six months. The majority (21) of the approved emergency projects involved sudden pothole-type subsidence events that were quickly addressed by backfilling the open subsidence holes. Two subsidence stabilization projects were also conducted, involving drilling and grouting beneath structures. In addition to the subsidence projects, the emergency program extinguished three refuse fires, sealed two open mine portals, and stabilized four landslides and one refuse pile. The individual costs of emergency projects ranged this evaluation year from \$4,950 to over \$1,500,000, and the approximate cost of addressing all 34 emergencies was \$3.4 million.

8. AML Project Inspections

OSM conducts periodic inspections/evaluations on a sample of all types of AML problems, including emergencies, regular grant projects, and watershed cooperative agreement projects. Sites may be evaluated during the planning stage, the pre-bid conference, construction, and at the final inspection. The 2010/2011 AML Performance Agreement

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established that at least ten percent of submitted projects, for both emergency and non-emergency work, would be conducted during the year.

OSM conducted twenty site visits and inspections on both emergency and non emergency projects in both the northern and southern regions of the State. No significant problems were observed on the site visits and project inspections, but as discussed in section IX.D.2 of this report, lack of project documentation was a problem. Site inspections indicated that the work was being done in accordance with the approved State program and the specific reclamation plans for the projects.

The Performance Agreement also requires that AMLR and OSM will jointly conduct inspections and site visits on all projects subject to a Memorandum of Agreement (MOA) under the Historic Preservation Act. There were no projects initiated this evaluation year that are covered by a MOA.

9. Shannon Branch Subgrant

Shannon Branch Refuse Pile Project continues to be challenging. The McDowell County Economic Development Authority (MCEDA) was awarded a sub-grant in 2004 to remove a coal refuse pile along Shannon Branch. The intent of the project was to utilize MCEDA's prison workforce and training programs to conduct the reclamation at the site. The refuse material was to be reprocessed, with profits from the sale of the coal going back into the project, and the reject from the reprocessing being used as needed sub-base for a proposed county landfill in the head of Shannon Branch Hollow.

Several problems have occurred at the site since the initial award of the contract. In the spring of 2005, an explosion occurred off-site while the reprocessor attempted to open a sealed mine shaft to obtain water. The accident at the site resulted in an extended shut down of the reprocessing activities and initiated legal issues between the county and their reprocessing subcontractor. Very little work was conducted on the site until late March 2006, primarily due to litigation between the subcontractor and MCEDA.

During most of EY 2008, refuse was reprocessed consistently, at an average rate of approximately 35,000 cubic yards of refuse excavation per month, and the grant period was extended to allow the reprocessing to continue. However, in mid February 2008, the company operating the landfill determined that no more refuse material was needed in the landfill and ordered the reprocessing company cease hauling refuse to the fill by May 2008. This resulted in additional litigation and a shutdown of reprocessing activities. In July 2008, plans were approved to allow the reprocessed reject to be returned to the project site, as opposed to the landfill area, where the refuse was to be temporarily placed and compacted in accordance with regulatory requirements. Reprocessing continued until mid March 2009, when coal demand slowed, and the reprocessing company could not find a buyer for the coal. Beginning in early April 2009, reprocessing was only being conducted

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periodically, and both the reprocessing and reclamation continued sporadically until the autumn of 2010. During that period, AMLR and OSM expressed concerns about the compliance with the plans for placement of the fill material. In December 2010, the agreement between the reprocessing company and MCEDA expired, stopping all reprocessing at the site. Consequently, very little refuse removal, reprocessing, or reclamation occurred in EY 2011. The sub-grant expired on June 30, 2011, and final reclamation of the site is not complete. It is anticipated that the sub-grant will be closed out in EY 2012 and plans to complete reclamation at the site will be developed.

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APPENDIX 1

Summary of Core Data to Characterize the Regulatory Program

The following tables present summary data pertinent to mining operations and regulatory activities under the West Virginia regulatory program. Unless otherwise specified, the reporting period for the data contained in the tables is the Evaluation Year. Other data and information used by the Office of Surface Mining Reclamation and Enforcement in its evaluation of West Virginia's performance is available for review in the evaluation file maintained by the Charleston Field Office.

Because of the enormous variations from state to state and tribe to tribe in the number, size, and type of coal mining operations and the differences between state and tribal programs, the summary data should not be used to compare one state or tribe to another.

List of Tables

Table 1	Coal Produced for Sale, Transfer, or Use
Table 2	Permanent Program Permits, Initial Program Sites, Inspectable Units, and Exploration
Table 3	Permits Allowing Special Categories of Mining
Table 4	Permitting Activity
Table 5	Off-Site Impacts
Table 6	Surface Coal Mining and Reclamation Activity
Table 7	Bond Forfeiture Activity
Table 8	Regulatory and AML Programs Staffing
Table 9	Funds Granted to State or Tribe by OSM
Table 10	State or Tribal Inspection Activity
Table 11	State or Tribal Enforcement Activity
Table 12	Lands Unsuitable Activity
Table 13	OSM Oversight Activity

Discussion of Tables

The OSM Directive, REG-8, establishes policies and instructions for completion of specific tables. These tables are presented in Appendix 1 and are utilized in order to provide national consistency. While directions are provided for table completion in REG-8, some additional information or further explanation is needed to explain how CHFO developed the numbers entered in some tables. In addition to the REG-8 table explanations, the following is provided:

General Information: Most information entered by CHFO (with the exception of Tables 1, 8, 9, 13 and 14) was obtained from the WVDEP Environmental Resources Information System (ERIS). In a few cases, the requested information for the table is not available in the ERIS system and obtaining the information would be extremely difficult. The OSM automated system that generates the tables installs a 0 when a number is not reported. Those cases are discussed below. Otherwise, a report of 0 indicates there were no actions or items to be reported.

Table 2: The number of permanent program permits in temporary cessation was developed utilizing the mine status information and inspection information. The information was not based on permit status information.

Table 3: Auger mining includes highwall mining. The number of coal preparation plants not located at a mine site is reported as 0 because WVDEP data does not differentiate between preparation plants located at the mine site from those in the vicinity of a mine site.

Table 4: The number of mid-term permit reviews completed that are not reported as revisions is reported as 0 because mid-term permit reviews are not reported as revisions in West Virginia.

Table 6: The number of permanent program permits terminated under Phase III Bond Release is reported as 49. There were 47 permits with Phase III releases and nine incremental Phase III releases. Of the nine incremental releases, two permits received their final incremental release, resulting in 49 permits being terminated.

An accurate number for cumulative disturbed acres is not available; thus, this item is reported as 0.

Table 7: West Virginia is a bond pool state. For the purposes of this table, all revoked permits are considered collected. The State has the responsibility under its approved program to initiate reclamation within 180 days, regardless of the actual collection status of the individual bond.

In previous years, only permanent program sites were included in this table. The EY 2010 Bond Forfeiture Activity Table reported 292 sites that were unreclaimed at the end of the year. In this year's table, the number reported for the end of last year/beginning of this year is 306, which includes West Virginia's 14 interim program bond forfeiture sites. One

interim program site was reclaimed during this evaluation year. Interim permits are a liability under the State's permanent regulatory program and must be included to reflect accurate numbers in other tables.

The table also shows that eight sites with bonds forfeited during the current year, but three of those eight were previously forfeited sites which were included in the list because the State needed to do additional work at the site. Only five new sites were forfeited during this evaluation year.

Table 13: The number of inspections and enforcement actions in the table do not match the numbers in the narrative because the narrative includes inspections and enforcement actions resulting from citizen complaint referrals and other site visits, and the table does not. The table only counts oversight inspections and enforcement actions that resulted from those inspections. Follow up inspections, citizen complaints, and site visits for assistance (and those violations resulting from those visits) are not included in the table.

TABLE 1

COAL PRODUCED FOR SALE , TRANSFER, OR USE¹ (Millions of short tons)			
Calendar Year	Surface Mines	Underground Mines	Total
2010	50.783	86.291	137.074

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 2

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

Mines and Other Facilities	Numbers of Permanent Program Permits and Initial Program Sites							Area in 100's of acres						
	Permanent Program Permits			Initial Program Sites				Permanent Program Permits (Permit Area)		Initial Program Sites		Total Area		
	Active	Inactive	Abandoned	Total	Active	Inactive	Abandoned	Total	Insp. Units ¹	Federal Lands	State/Tribal and Private Lands			
Surface Mines	495	112	164	771	0	0	10	10	781	0.0	2,713.4	0.0	8.4	2,721.8
Underground Mines	565	157	69	791	0	0	1	1	792	0.1	322.7	0.0	0.1	322.9
Other Facilities	420	71	45	536	0	1	2	3	539	0.0	478.0	0.0	0.1	478.1
Total	1,480	340	278	2,098	0	1	13	14	2,112	0.1	3,514.1	0.0	8.6	3,522.8

Permanent Program Permits and Initial Program Sites: Total Number: 2112
 Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU): 1.00
 Average Acres per Site: 166.80
 Average Acres per IU: 166.80
 Permanent Program Permits in Temporary Cessation: Total Number: 139
 Number More than 3 Years: 53

EXPLORATION SITES
 Number of Exploration Sites with Permits: Total number of permit sites: 0
 Sites with Federal lands²: 0
 Number of Exploration Sites with Notices: Total number of notice sites: 440
 Sites with Federal lands²: 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.
²When a Permanent Program Permit or Initial Program Site contains both Federal and State and Private lands, the acreage for each type of land is in the applicable column.
³The number of Exploration Sites with 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

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	3
Mountaintop Removal Mining	785.14(c)(5)	3	213
Steep Slope Mining	785.15(c)	7	108
AOC Variances for Steep Slope Mining	785.16(b)(2)	0	39
Prime Farmlands Historically Used for Cropland	785.17(e)	0	0
Contemporaneous Reclamation Variances	785.18(c)(9)	4	148
Mining on or Adjacent to Alluvial Valley Floors	785.19(e)(2)	0	0
Auger Mining	785.20(c)	9	258
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	14	203
Activities in or Within 100 Feet of a Perennial or Intermittent Stream	780.28(d) and/or (e) 784.28(d) and/or (e)	23	801

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	32	6	3,722	17	21	343	19	18	321	68	45	4,386
Renewals	74	53		60	53		45	33		179	139	
Transfers, sales, and assignments of permit rights	64	3		92	26		63	12		219	41	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										188	166	
Exploration notices ²											0	
Revisions that do not add acreage to the permit area		163			107			48			318	
Revisions that add acreage to the permit area but are not incidental boundary revisions	11	17	2,205	0	0	0	0	1	3	11	18	2,208
Incidental boundary revisions	279	0	0	0	137	0	59	0	0	338	137	0
Totals	460	242	5,927	169	344	343	186	112	324	1,003	864	6,594

Permits terminated for failure to initiate operations:

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

Permits in temporary cessation

Midterm permit reviews completed that are not reported as revisions

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.

Number: 0 Acres: 0.0
 Notices received: 58 Acres: 5,318.0
 Number: 0 Terminations: 105

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												
TYPE OF IMPACT EVENT												
Blasting	1	0	1	5	12	2	0	0	0	1	4	0
Land Stability	0	0	0	7	15	0	0	0	0	0	0	0
Hydrology	0	0	0	0	0	0	103	152	13	0	0	0
Encroachment	4	7	1	31	44	2	2	3	2	0	0	0
Other	0	0	0	6	9	0	1	1	0	1	1	0
Total	5	7	2	49	80	4	106	156	15	2	5	0

Total Number of Inspectable Units²: 1870

Inspectable Units with one or more off-site impacts: 251

Inspectable Units free of off-site impacts: 1619

% of Inspectable Units free of off-site impacts¹: 87

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												
TYPE OF IMPACT EVENT												
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	26	9	8	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0
Other	1	1	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	0	0	0	26	9	8	0	0	0

Total Number of Inspectable Units²: 314

Inspectable Units with one or more off-site impacts: 45

Inspectable Units free of off-site impacts: 269

% of Inspectable Units free of off-site impacts¹: 86

TABLE 5
(Continued)

TOTAL OFF-SITE IMPACTS INCLUDING 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 EVENTS											
TYPE OF IMPACT EVENT	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
Blasting	1	0	1	5	12	2	0	0	0	1	4	0
Land Stability	0	0	0	7	15	0	0	0	0	0	0	0
Hydrology	0	0	0	0	0	0	129	161	21	0	0	0
Encroachment	4	7	1	31	44	2	2	3	2	0	0	0
Other	1	1	0	6	9	0	1	1	0	1	1	0
Total	6	8	2	49	80	4	132	165	23	2	5	0

Total Number of Inspectable Units²: 2184

Inspectable Units with one or more off-site impacts: 296

Inspectable Units free of off-site impacts: 1888

% of Inspectable Units free of off-site impacts¹: 86

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 permanent program permits terminated under Phase III bond release during the Evaluation Year and (3) the number of Initial Program Sites with jurisdiction terminated during the Evaluation Year and (4) the number of bond forfeiture sites that were reclaimed during the Evaluation Year.

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	306		23,833
Sites with bonds forfeited and collected during the current Evaluation Year	8	556,446	623
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	23		1,444
Sites with bonds forfeited and collected that were un-reclaimed at the end of the current Evaluation Year ¹	291		23,012
Sites with bonds forfeited but un-collected at the end of the current Evaluation Year	0		0
Forfeiture Sites with Long-Term Water Pollution			
Bonds forfeited, lands reclaimed, but water pollution is still occurring	23		
Bonds forfeited, lands reclaimed, and water treatment is ongoing	119		
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	0		0
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	0		0
Sites being reclaimed by surety/other party at the end of the current Evaluation Year ²	0		0

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.

TABLE 8

REGULATORY AND AML PROGRAMS STAFFING	
Function	Number of FTEs
Regulatory Program	
Permit Review and Maintenance	42.50
Inspection	74.00
Other (supervisory, clerical, administrative, fiscal, personnel, etc.)	116.55
Regulatory Program Total	233.05
AML Program Total	59.00
TOTAL	292.05

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	11,596,793		
Other Regulatory Funding, if applicable	141,998		
Subtotal (Regulatory Funding)	11,738,791	23,210,586	51
Small Operator Assistance Program Grant Funding	0	0	
Abandoned Mine Land Reclamation Funding	54,355,534	54,355,534	100
Watershed Cooperative Agreement Program	272,910	272,910	100
TOTAL	66,367,235		

TABLE 10

STATE OR TRIBAL INSPECTION ACTIVITY

Permits and Sites		Complete Inspections			Partial Inspections		
Activity Status	Number of Permits and Sites	Inspections Required Annually	Approximate Number of Required Inspections ¹	Number of Complete Inspections Conducted	Inspections Required Annually	Approximate Number of Required Inspections ¹	Number of Partial Inspections Conducted
Approximate Number of Required Inspections of Permanent Program Permits							
Active	1,480	4	5,920		8	11,840	
Inactive	340	4	1,360		0	0	
Abandoned	278	4	1,112		8	2,224	
Approximate Number of Required Inspections of Initial Program Sites							
Active	0	4	0		8	0	
Inactive	1	4	4		0	0	
Abandoned	13	4	52		8	104	
Inspections Conducted and Approximate Number Required on All Permanent Program Permits and Initial Program Sites							
Total Active	1,480		5,920	5,577		11,840	12,195
Total Inactive	341		1,364	1,353		0	1,360
Total Abandoned	291		1,164	753		2,328	2,468
Total	2,112		8,448	7,683		14,168	16,023
Exploration Sites with Permits and with Notices							
All Exploration	440			201			133

¹ The number of required inspections are approximations because part way through the Evaluation Year sites may change "activity status" or become eliminated because final Phase III bond release was approved or the regulatory authority terminated its jurisdiction under the Initial Program. Likewise, as new permits are issued throughout the Evaluation Year, the number of Permanent Program Permits would increase, but only some of the "Inspections Required per Site Annually" would be required for those sites permitted part way through the year. Additionally, some sites may be consolidated into one inspectable unit, thus one inspection may cover multiple sites.

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	Number of Actions ¹	Number of Violations ¹
Notice of Violation	857	857
Failure-to-Abate Cessation Order	46	46
Imminent Harm Cessation Order	17	17

¹ Does not include actions and violations that were vacated.

TABLE 12

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

TABLE 13

OSM OVERSIGHT ACTIVITY					
Oversight Inspections and Site Visits					
	Complete		Partial		
	Joint	Non-Joint	Joint	Non-Joint	Total
Oversight Inspections	262	26	117	40	445
	Technical Assistance		Other		Total
Site Visits	2		1		3
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?					238
Of the violations observed, how many did OSM defer to State action during inspections?					136
Of the violations observed, how many did OSM refer to the State through Ten-Day Notices? ²					51
How many Ten-Day Notices did OSM Issue for observed violations? ³					17
How many Ten-Day Notices did OSM issue to refer citizen requests for inspection?					11
How many Notices of Violation did OSM issue?					0
How many Failure-to-Abate Cessation Orders did OSM issue?					0
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.

**West Virginia Annual Evaluation Report
Evaluation Year 2011**

APPENDIX 2

Comments of State of West Virginia on the Report



west virginia department of environmental protection

Division of Mining and Reclamation
610 57th Street Charleston, WV 25304
(304) 926-0490

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

September 21, 2011

Roger Calhoun, Director
United States Department of the Interior
1027 Virginia Street, East
Charleston, WV 25301

Dear Mr. Calhoun:

This letter is in response to the comment in the 2011 Annual Evaluation Report that in West Virginia, OSM has issued three Ten Day Notices (TDN) that involved permit defects. With this response, we are restating our objection to your agency's unlawful interference in the state program through INE 35 and use of TDN's for purported defects in State-issued permits.

OSM's INE 35 and use of TDN's for purported defects in State-issued permits are contrary to OSM's authority under SMCRA. The State of West Virginia has had exclusive regulatory jurisdiction over the regulation of surface coal mining in the State since the Office of Surface Mining Reclamation and Enforcement's (OSM's) initial, conditional approval of State laws enacted for that purpose on January 21, 1981. Within the State, responsibility for administering and enforcing this regulatory program is assigned to the West Virginia Department of Environmental Protection (WVDEP). INE 35 and use of TDN's for purported defects in State-issued permits is part of OSM attempt to unlawfully expand the scope of federal jurisdiction over regulation of mining by seizing authority that Congress has granted to the states and other agencies. This began with June 11, 2009 MOU between the EPA, the Interior Department, and the Army Corps of Engineers which set forth their agreement to revolutionize the environmental regulation of coal mining, without the benefit of new legislation, rulemaking or even notice to the public and opportunity for interested parties to comment. The June 11, 2009 MOU charged the Interior Department and OSM with, among other things, obligations to "reevaluate and determine how it will more effectively conduct oversight of State permitting ... activities under SMCRA" and "remove impediments to its ability to require correction of permitting defects in SMCRA primacy states." Pursuant to this mandate, Joe Pizarchik, Director of OSM, and Sylvia Bacca, Deputy Assistant Secretary of the Interior Department, issued a memorandum on November 15, 2010 announcing that OSM would no longer follow the existing Interior Department interpretation, which had been set forth in an October 21, 2005 letter from Rebecca W. Watson, Assistant Secretary of the Interior Department, to Joseph M. Lovett. On January 31, 2011, OSM took the further step of issuing a revised policy directive, INE 35, which not only sanctioned the use of TDN's for purported defects in State-issued permits, but also raises the possibility that OSM can also employ the 30 CFR, Part 733 program takeover process to take

Promoting a healthy environment.

Roger Calhoun, Director
September 21, 2011
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over State programs on a permit application-by permit application basis to completely cut primacy states out of the permitting process on individual permit applications.

The January 31, 2011 iteration of INE 35 is contrary to SMCRA in at least three ways. First, OSM is unlawfully attempting to exercise regulatory authority Congress assigned exclusively to the states. Second, OSM is attempting to use its ten day notice authority in a manner that is contrary to the provision in SMCRA that authorizes ten day notices. Third, OSM is creating an alternate process for appealing a State permitting decision in violation of the exclusive procedure mandated in SMCRA.

INE 35 and use of TDN's for defects violates the State's exclusive jurisdiction over permitting

Congress allowed states that wished to do so to obtain "exclusive" jurisdiction over the regulation of surface mining within their borders, SMCRA § 503(a). It provided for "a scheme of mutually exclusive regulation by either the U.S. Secretary of the Interior or the State regulatory authority, depending on whether the State elects to regulate itself or to submit to federal regulation. Because West Virginia is a primacy state, its regulation of surface coal mining on nonfederal lands within its borders is exclusive. Congress was "careful and deliberate" in establishing this mutually exclusive regulatory scheme. As applied in the area of permitting for mining operations, Congress established in SMCRA that:

[T]he state is the sole issuer of permits. In performing this centrally important duty, the state regulatory authority decides who will mine in what areas, how long they may conduct mining operations, and under what conditions the operations will take place. See [SMCRA §§] 506, 510. It decides whether a permittee's techniques for avoiding environmental degradation are sufficient and whether the proposed reclamation plan is acceptable. See [SMCRA §] 510(b).

INE 35 and use of TDN's for purported defects in State-issued permits are clearly contrary to the exclusive regulatory jurisdiction states are given in section 503(a) of SMCRA and the State's role as the sole issuer of permits under SMCRA.

The TDN Provision of SMCRA Does Not Authorize TDNs for Permitting Issues

The only exceptions SMCRA provides to the exclusive jurisdiction it grants to primacy states are found in sections 521 and 523 of SMCRA. The latter of these sections deals with regulation of mining on federal lands within a state and is inapplicable to the operations on private property. The former, in section 521(a)(1), provides the basis for OSM's issuance of ten day notices and its promulgation of regulations on this subject. This provision states, in pertinent part:

Whenever, on the basis of any information available to him, including receipt of information from any person, the Secretary has reason to believe that any person is in violation of any requirement of this chapter or any permit condition required by this chapter, the Secretary shall notify the State regulatory authority, if one exists, in the State in which such violation exists. If no such State authority exists or the State regulatory authority fails within ten days after notification to take appropriate action to cause said violation to be corrected or to show good cause for such failure and transmit notification of its action to the Secretary, the Secretary shall immediately order Federal inspection of the surface coal mining operation at which the alleged violation is occurring [.]

INE 35 and use of TDN's for purported defects in State-issued permits are unsustainable under Section 521 (a)(1) for at least three reasons. First, with alleged permit defects, generally, and with the absence of any on-the ground violations, as this term is used in Section 521 (a)(1). This provision clearly mandates that a TDN may be issued only when a person, as that term is used in the applicable provisions of SMCRA, is currently in violation of performance standards or permit requirements. Second, the time frame Congress established in section 521(a)(1) for a state response to a TDN - ten days- cannot have been intended to apply to permitting actions. Even under the permitting requirements set forth in SMCRA, itself, not including all of the regulations that have been promulgated since its adoption, permits are required to address extensive, complex requirements of state law. Review of permits applications to assure compliance with all of these requirements often takes months, if not a year or more. Responding to extensive allegations of permitting defects could rarely, if ever be accomplished in the time Congress allowed. The ten day time frame Congress allowed for a State response is reasonable for more simple matters like relatively simple, straightforward allegations of individual violations of performance standards or permit conditions, but is completely unreasonable for a response on a permitting matters. Clearly, Congress did not intend to apply a ten day process to matters that are this complex. Third, the authority Congress provided OSM upon an inappropriate response to TDN by a state- to "immediately order Federal inspection of the surface coal mining operation at which the alleged violation is occurring. Should OSM determine the State's response to a TDN to be inappropriate regarding purported defects in State-issued permits, what exactly will it inspect and what violation "is occurring"?

INE 35 and use of TDN's for defects violates the State's Exclusive Adjudicatory Jurisdiction

An extension of the concept of granting exclusive regulatory jurisdiction to primacy states is Congress' decision in SMCRA in to also provide exclusive adjudicatory jurisdiction to the states as well. INE 35 and the use of the TDN process in these cases subverts the exclusive administrative appeal process that is set forth in Section 514(c) of SMCRA and the exclusive judicial appeal process established in Section 526 of SMCRA. As with one of the TDN, the

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allegations in the citizens' complaint amount to nothing more than the citizens' dissatisfaction with the decisions made by the WVDEP regarding the terms of the permit. Essentially, the TDN is being used as an alternate means of appealing the WVDEP's permitting decisions. SMCRA simply does not provide for alternate avenues to seek relief from permit decisions outside of the framework for the appeal process.

In closing, these three TDN that involved permit defects have been taken without any legal basis or justification. They exceed the delegation of authority Congress has given to OSM and jeopardize the vested states' authority under SMCRA.

Sincerely,



Lewis A. Halstead
Deputy Director

OSM's Response to WVDEP's Comments

WVDEP has provided its detailed, legal position as to why it believes permit defects should not be subject to OSM's enforcement authorities. We do not find their arguments persuasive. As set forth in Directive INE-35, OSM maintains that its authority to issue a Ten-Day Notice (TDN) for permit defects is consistent with SMCRA and its implementing regulations. Federal Courts have acknowledged that OSM has a continuing oversight responsibility in primacy States and Section 521(a) of SMCRA provides clear statutory authority for Federal oversight and enforcement relative to State permitting violations. The State's arguments are similar to those that have been used in past cases against OSM (*National Mining Association v. Department of the Interior*, 177 F.3d 1 (D.C. Cir. 1999); *Coteau Prop. Co. v. Department of the Interior*, 53 F.3d 1466 (8th Cir. 1995); *In re Permanent Surface Mining Regulation Litigation*, 653 F.2d 514, 519 (D.C. Cir. 1981) and *Pennsylvania Federation of Sportsmen v. Hess*, 297 F.3d, 2002). -OSM's legal position on these issues will be expanded upon as necessary during our normal enforcement and administrative review processes. We have made no changes to this Annual Report. The cases cited in the annual demonstrate that using the TDN process for permit defects will reduce the potential for environmental harm from errors made in the permitting process.