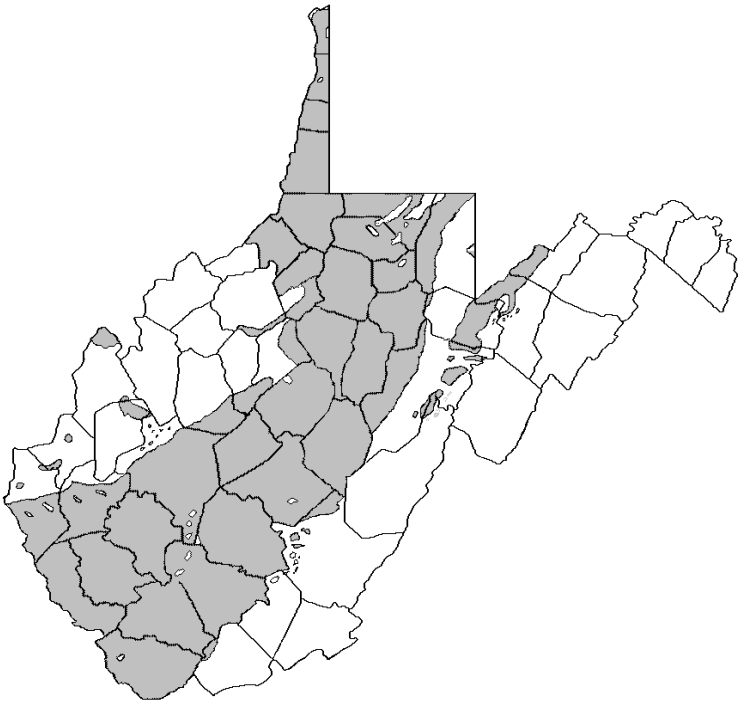
2008
WEST VIRGINIA
ANNUAL EVALUATION REPORT



PREPARED BY

Charleston Field Office
Office of Surface Mining Reclamation and Enforcement
Charleston, West Virginia

ANNUAL EVALUATION SUMMARY REPORT

FOR THE REGULATORY AND ABANDONED MINE LAND

RECLAMATION PROGRAMS

ADMINISTERED BY THE STATE

OF
WEST VIRIGNIA

FOR

EVALUATION YEAR 2008

JULY 1, 2007 TO JUNE 30, 2008

TABLE OF CONTENTS

APPENDIX A: TABULAR SUMMARY

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 State regulatory programs that have been approved by OSM 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 the period of July 1, 2007, to June 30, 2008. 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).

The following acronyms are used in this report:

A&E	Administration and Enforcement
ACSP	Appalachian Clean Streams Program
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Office of Abandoned Mine Lands and Reclamation
ARRI	Appalachian Regional Reforestation Initiative
ATP	Authorization to Proceed
CBER	Center for Business and Economic Research
CFR	Code of Federal Regulations
CHFO	Charleston Field Office
CHIA	Cumulative Hydrologic Impact Assessment
CSR	Code of State Regulations
CVI	Canaan Valley Institute
CWA	Clean Water Act
DOI	Department of Interior
EPA	Environmental Protection Agency
ERIS	Environmental Resources Information System
EY	Evaluation Year
FR	Federal Register
FRA	Forestry Reclamation Approach
FTE	Full-time Equivalent
GPS	Global Positioning System
ITO	Information Technology Office
IBR	Incidental Boundary Revision
LCC	Lexington Coal Company
MCEDA	McDowell County Economic Development Authority
MOA	Memorandum of Agreement
MSHA	Mine Safety and Health Administration
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NTTP	National Technical Training Program
OEB	Office of Explosives and Blasting
OSM	Office of Surface Mining Reclamation and Enforcement
OSR	Office of Special Reclamation

OVEC	Ohio Valley Environmental Coalition
RIMS	Reclamation Information Management System
SMCRA	Surface Mining Control and Reclamation Act of 1977
SRF	Special Reclamation Fund
SWROA	Surface Water Run Off Analysis
TAGIS	Technical Applications & Geographical Information System
TDN	Ten-Day Notice
TIPS	Technical Information Processing System
TACF	The American Chestnut Foundation
USFWS	U.S. Fish and Wildlife Service
VISTA	Volunteers In Service To America
WV	West Virginia
WVCA	WV Coal Association
WVDEP	WV Department of Environmental Protection
WVDMR	WV Division of Mining and Reclamation
WVDHHR	West Virginia Department of Health and Human Resources
WVHC	WV Highlands Conservancy
WVRC	WV Rivers Coalition
WVSCMRA	WV Surface Coal Mining and Reclamation Act

II. Overview of the West Virginia Coal Mining Industry

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 SMCRA in 1977 resulted in many unreclaimed or under reclaimed areas within the State. Currently, there are 4,332 problem sites listed in the Abandoned Mine Land Inventory System (AMLIS) for West Virginia. Two percent of them are funded, 59 percent are unfunded, and 39 percent have been completed through the State's Abandoned Mine Land (AML) Program.

West Virginia's demonstrated coal reserve base totals 32.7 billion tons, and its estimated recoverable reserves total 17.8 billion tons. The State's estimated recoverable coal reserves at producing mines totaled 1.8 billion tons in 2007. West Virginia ranks fourth in 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 41 of the 55 counties. Of the 117 identified coal seams in the State, 65 seams are mineable using current technology.

West Virginia's production accounts for about 13 percent of the Nation's total coal production. In 2007, West Virginia produced 161.2 million tons of coal, allowing it to retain its ranking as the second largest coal producing State (see Table 1, Appendix A for coal production based on sales) (Actual Production - David Kessler, WV Miners' Health, Safety, and Training 2007). Coal was produced from 55 different seams. The Pittsburgh, Coalburg, Stockton-Lewiston, Lower Kittanning, Clarion, Upper Kittanning Rider, and Eagle coal seams accounted for about 67 percent of the State's total coal production. During 2007, coal was produced in twenty-eight counties in West Virginia. The top six coal producing counties in 2007 by production were: Boone, Logan, Marion, Kanawha, Mingo, and Monongalia Counties. The State's producing mines had an average coal recovery rate of 59 percent. The average price per ton of coal mined

in West Virginia during 2006 increased to $45.94. The average price per ton of coal nationwide increased to $25.17 in 2006 (U.S. Department of Energy, 2006).

West Virginia leads the Nation in underground coal production. Underground mines produce approximately 58 percent of the State's total coal production. In 2007, there were 41 longwall mines operating in the country. Longwall mining activities occurred in ten States. With 13 longwall mines, West Virginia had more longwall mining operations than any other State in 2007. Longwall mining operations accounted for 41 percent of the State's underground coal production and 24 percent of the State's total coal production in 2007. Longwall coal production in the State was up about 1 percent in 2007. Continuous mining activities still account for most of the State's underground coal production.

West Virginia has 2,155 inspectable units that include 1,714 active mines, 110 inactive mines, and 331 unreclaimed bond forfeiture sites. The average number of acres per inspectable unit is 157 acres. Surface mines average 326 acres per unit, whereas underground mines average 38 acres per unit. Approximately 80 percent of the State's permits are active and require monthly inspections by the WV Department of Environmental Protection (WVDEP). Underground mines account for about 38 percent of the total inspectable units and surface mines account for 36 percent. The remaining 26 percent consists of other facilities, such as preparation plants, coal refuse piles, loading facilities, and haulroads.

Approximately 89 percent of the coal produced in West Virginia is used domestically, with 22 percent of that coal being consumed within the State. Most coal produced in West Virginia is used to generate electricity. Eighty-three percent of the State's domestic coal production is used by electric utilities in 31 States, including West Virginia. Coal produces 98 percent of the electricity generated in State. Coke plants use approximately 13 percent of the State's domestic coal production and the remaining 4 percent is for industrial, commercial, and residential use. North Carolina, Ohio, Pennsylvania, and Kentucky import 49 percent of West Virginia's domestic coal production. Sixty-two percent of the State's coal production is transported by railroad, 11 percent is transported by water, and the remainder by truck, conveyor, or is stockpiled.

West Virginia is the Nation's leading coal exporter with 33 percent of the country's foreign exports. Historically, Canada, Italy, France, and the Netherlands have been the leading importers of West Virginia coal. Metallurgical coal has comprised about 90 percent of West Virginia's coal exports to foreign countries. Approximately 52 percent of the Nation's metallurgical coal exports come from West Virginia. The State's foreign coal exports increased by 6 percent in 2006, while the Nation's foreign coal exports decreased by 6 percent, due to a decline in coal synfuel exports. Coal exports averaged about $71 per ton in 2006.

About 260 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 has been at underground mines. Even with improved market conditions, employment declined by about 7 percent since last year. However, the number of employees in the State's mining industry has increased by 35 percent since 2000. During 2007, the State's coal mining industry directly employed 19,213 people with a payroll of more than $1 billion. Total employment, including independent contractors, is about 45,000 employees. Sixty-eight percent of the miners in the State work in underground mines. Coal mining

operations in Boone, Logan, Mingo, Kanawha, and Raleigh Counties employ 53 percent of the miners in the State. Union representation in the State continued to decline in 2006. Unions now represent 28 percent of the miners in the State, and the remaining miners are non-union. West Virginia's miners produce an average of 3.3 tons of coal per miner per hour. Estimates are that the State's coal industry generates approximately 80,000 additional coal-related jobs.

Coal accounts for nearly 13 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 $340 million annually in business and severance taxes to State and local governments and another $180 million in Federal taxes. 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.

III. Overview of the Public Participation Opportunities in the Oversight Process

Throughout the 2008 Evaluation Year (EY), the WVDEP and OSM officials met or interacted with representatives from the following citizen, environmental, and industry groups:

- West Virginia Highlands Conservancy (WVHC),
- West Virginia Coal Association (WVCA),
- Ohio Valley Environmental Coalition (OVEC),
- Contractor's Association of West Virginia,
- River of Promise Steering Committee (Cheat River),
- Deckers Creek (of the Monongahela River) Restoration Team
- Mid-Atlantic Highlands Action Program,
- Eastern Coal Region Roundtable,
- Appalachian Coal Country Watershed Team,
- West Virginia Rivers Coalition (WVRC),
- River Network,
- Tygart River Watershed Association,
- Friends of the Cheat,
- North Fork Watershed Project Team,
- West Virginia Conservation Agency,
- Guardians of the West Fork,
- West Virginia Watershed Network,
- Lower Paint Creek Watershed Association,
- Morris Creek Watershed Association
- Friends of the Blackwater River,
- Friends of Deckers Creek,
- Plateau Action Network,
- Rural Appalachian Improvement League,
- Upper Guyandotte Watershed Association,
- Buckhannon River Watershed Association,
- Kellys Creek Communities Association,
- Lower West Fork Watershed Association,
- Buckhannon River Project Team,

- American Society of Mining and Reclamation,
- Canaan Valley Institute (CVI),
- WV Infrastructure and Jobs Development Council,
- WV Public Service Commission and various public service districts,
- Water Development Authority, and
- WV Bureau of Public Health.

Additionally, OSM was involved with or attended public functions associated with the following activities:

- Surface Mine Drainage Task Force Symposium,
- West Virginia Watershed Management Framework,
- Endangered Species Protocols for Permitting,
- East Lynn Lake Coal Lease Proposal,
- Friends of the Cheat Annual River Festival,
- West Virginia Coal Association Annual Meeting,
- Water Supply Systems Advisory Council,
- Arbor Day Celebration,
- Watershed Cooperative Agreement Grant Program, and
- Watershed Celebration Day.

To measure the State's success in meeting the environmental protection goals of SMCRA, OSM and 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. The Agreements contain the basic framework for oversight activities beginning on July 1, 2007, and ending on June 30, 2009. 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.

The CHFO maintains a mailing list of individuals and organizations that have been active in regulatory and AML issues in West Virginia. The office staff routinely interacts with individuals and groups throughout the year. OSM has maintained contact with many watershed groups throughout the State and provides assistance through a network of summer interns and Volunteers in Service to America (VISTA) workers funded by OSM. These interns and VISTA workers interact with local watershed groups and provide additional feedback to the CHFO regarding citizen concerns.

West Virginia's approved regulatory program provides many additional opportunities for public participation. In the permitting process, the State must 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. 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 or judicial review through the State court system.

IV. Major Accomplishments/Issues/Innovations in the West Virginia State Regulatory Program

A. Accomplishments/Innovations

- Indiana Bat Protocol – Follow-up Report - The U.S. Fish and Wildlife Service (USFWS) completed a Biological Opinion for OSM outlining the roles of each agency in regards to threatened or endangered species. Since the inception of the 1996 Biological Opinion, many states have struggled to reach a consensus of the actions and responsibilities of each agency. In West Virginia, OSM, USFWS, and the WVDEP have worked together to interpret the 1996 Biological Opinion. On January 1, 2007, this multi-agency cooperation resulted in the public release of the new WVDEP procedures and guidelines associated with the Endangered Species Act. In West Virginia, the working group also completed protocols in 2007 for protection of the Virginia big-eared bat in compliance with the 1996 Biological Opinion regarding threatened or endangered species.

  An Indiana Bat Working Group has recently been formed to address differences in guidelines across State borders. There has been concern that different regulations and/or policies between the states could cause problems with enforcement from the State or Federal level. The Indiana Bat Protocol developed for West Virginia has received good reviews from other states. As meetings continue to develop a multi-state Indiana Bat Protocol, the West Virginia protocol has become the template for the regional plan.

- On February 27, 2008, the WVDEP conducted an AOC workshop at the Chief Logan State Park conference Center.

- The WVDEP and West Virginia University have begun working together to study the potential for growing switchgrass on surface mines across the state.

- In the WVDEP's continuing effort to formulate e-mapping standards, they are developing an AutoCAD format standard that will allow automated extraction to a GIS national standard. For consistency between states, they plan to use a CAD standard similar to the one developed for the Virginia Division of Mines, Minerals, and Energy.

- The WVDEP is working with OSM's Appalachian Regional Reforestation Initiative (ARRI), and Technical Applications & Geographical Information System (TAGIS) to develop new tools for change analysis in the revegetation over long time periods. These techniques will use geo-referenced historic air photography, modern remote sensing, and geo-referenced historic and modern ground photography. Using these non-standard historic sources allow analysis of change over a 70-year period. This is particularly useful in reforestation.

- The WVDEP, OSM, and the WV Department of Health and Human Resources (DHHR) continue to analyze the environmental impact of the use of coal slurry when injected underground. All water quality sampling was completed by June 10, 2008, and the WVDEP is scheduled to finish the study by December 2008.

- The WVDEP taught Garmin GIS Techniques, MapSource, and TopoFusion to all WVDEP Permit Reviewers and Inspectors in May 2008. We assisted OSM - Technical Information Processing System (TIPS) in their Garmin class taught in Charleston, WV.

- On November 13, 2007, the WVDEP's Division of Mining and Reclamation finalized its Selenium Implementation Guidance document.

B. Issues

1. Acid Mine Drainage (AMD) Inventory of Active Permits

As discussed in Section VII.J, the WVDEP has been unable to update with more specific parameters an improved inventory of active, bonded permits requiring water treatment since the last attempt at an update in 2000. The WVDEP recognized the need for an improved inventory as part of an action plan signed in 2002. A joint WVDEP and OSM team has been working to update information regarding water treatment activities on active permits in the State. During this evaluation year, preliminary results indicate there are at least 370 active, bonded permits in the State with appreciable water treatment costs. However, the team advised management that the available water treatment data is not sufficient to complete the inventory. Five tasks remain that will require additional time and resources. The team is awaiting further direction from the State on how to best complete the project.

2. Bond Forfeiture – Special Reclamation of Sites with Third Party Liabilities

In 2006, the WVDEP and OSM identified 42 forfeited permits as potentially having a third Party obligated to complete land and/or water reclamation. From a file review, the reviewers were not able 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.H. of this report.

3. Bond Forfeiture Site Inspection

As further discussed in Section VII.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. During this reporting period, the State 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 Code of State Regulations (CSR) 38-2-20.1.a.6 before it can reduce inspection frequency at bond forfeiture sites within the State.

4. Outcrop / Downslope Incidents

OSM monitored the State's efforts to implement their regulation and policies regarding constructed outcrop barrier design and certification. OSM did not observe any problems concerning outcrop barriers or downslope violations while conducting our inspection activities. OSM believes the State has adequately implemented the recommendations of our 2006 evaluation.

5. Water Supply Replacement

As noted last year, the WVDEP is requiring operators to replace water supplies in a timely manner. However, several water supplies that were replaced and initially determined to be adequate later proved to be problematic. Better information

regarding alternative water supplies during the permitting process could alleviate this problem. In addition, other areas that require WVDEP's attention include:

- escrow bonding when final water supply replacement will exceed 90 days;
- modifications to permits once problems are identified; and
- improved complaint investigation procedures.

OSM and State officials met during the evaluation year to discuss the results of the study. It was determined that a joint State and Federal team was needed to further evaluate and implement the recommendations.

6. AMD Prediction – Underground Mining and Expansions

During EY 2005, the OSM and WVDEP jointly developed a work plan to evaluate underground mining permits where AMD has developed. The review was designed to determine whether AMD formation could have been predicted and properly addressed through better permitting considerations and decisions. Staff from the CHFO, the OSM Appalachian Region, and WVDEP participated in the evaluation.

Nine permits were evaluated and a final report was completed on March 16, 2007. Three of the evaluated permits were located in the northern part of the State and six were located in the south. The review found that data could be used more consistently in predicting, preventing, or addressing AMD. The report also noted that revised Cumulative Hydrologic Impact Assessments (CHIA) should be required with significant underground mine expansions.

The WVDEP had agreed to take several actions to improve how AMD is addressed in the future. These include updating 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. Those actions had not been completed at the end of this review period.

7. Productivity Measurement Standard – Pasture Plate Method Progress

As reported in 2006, a joint WVDEP/OSM team completed an evaluation of a new method for measuring productivity success known as the Pasture Plate Method. The team concluded that the Pasture Plate Method is a viable method for determining the productivity of reclaimed mined lands, but it had certain limitations. Those limitations were detailed in an October 11, 2005, report entitled "Estimation of Forage Mass from Sward Height and Forage Density on West Virginia Surface Mine Sites" as prepared by the West Virginia University Extension Service.

The WVDEP had planned to submit the Pasture Plate Method to OSM as a program amendment at the end of the 2006 reporting period. However, due to changes in Federal regulations as discussed in the August 30, 2006, *Federal Register* (FR), States no longer have to submit revegetation measurement techniques to OSM for approval. As discussed in that notice, such measurement techniques must be selected by the State regulatory authority, described in writing, and made available to the public (71 FR 51684-51706).

On March 26, 2007, WVDEP issued a memorandum concerning ground cover and productivity success standards that replaces its productivity and ground cover success

standards memorandum that was issued on May 1, 2002, and approved by OSM. On June 19, 2007, OSM identified some issues regarding the memorandum.

During the evaluation year, the State initiated revisions to that memorandum. A meeting was held to discuss the memorandum and some other oversight issues. Implementation of the memorandum is delayed until the issues are resolved.

8. Birch River Report

OSM monitored the State's efforts to implement recommendations resulting from our joint OSM/WVDEP investigation into the Birch River incident that occurred in June 2006. Heavy rainfall and erosion of a durable rock fill had caused pollution of the Birch River. During the course of our inspection activities, we did not observe any conditions similar to what led to that incident. We believe the State has adequately implemented the recommendations.

9. Slurry Impoundment (Breakthrough) Study

As discussed in more detail in Section VII of this report, OSM and WVDEP completed a technical review covering issues related to the potential for breakthrough of slurry impoundments into adjacent underground mine workings. In two of the three permits reviewed in this oversight period, OSM concluded the permit application did not adequately address the regulatory requirement intended to prevent slurry breakthrough into the underground works. OSM and WVDEP disagreed on portions of these reports. In the cases of disagreement with the WVDEP issued permit, OSM is coordinating with the Mine Safety and Health Administration (MSHA) to assure that the OSM issues raised during the review of the State permit are considered by MSHA in its approval of slurry disposal. OSM plans to continue oversight of this topic.

10. Peachtree Ridge Black Water Discharge

During this year, OSM completed a report on the cause of a 2007 blackwater spill that was visible for approximately 7 miles in Peachtree Creek, continuing to Martin Fork, and on into Marsh Fork of the Coal River. The WVDEP had taken appropriate action on the violation through the issuance of an Imminent Harm Cessation Order to the operator of the Peachtree Mining Company permit (U-4005-91). OSM found the cause to have been human error in that the pond downstream of the deep mine and stock pile area was being cleaned with no attempts to reduce or block any inflow of water into the pond. A contributing factor was that the pond was designed for a small disturbance area of 14 acres but it accepted flow from 90 acres and a pumped discharge from the deep mine. The West Virginia program allows ponds to be sized based on the disturbed area without consideration of the size of the total watershed draining into the pond or consideration of the type of mining. OSM and the State are looking for trends in causes of blackwater discharges as part of an ongoing project described in section VII.K.

11. Litigation

a. Material Damage:

Ohio Valley Environmental Coalition, Inc., et al., v. Secretary Kempthorne, DOI, Civil Action No. 3:04-00084 (S.D. W.Va.)

On January 30, 2004, the Ohio Valley Environmental Coalition (OVEC) and others filed a complaint requesting that the U.S. District Court for the Southern District of West Virginia vacate OSM's December 1, 2003, *Federal Register* decision approving a State program amendment providing for a new definition of material damage and the deletion of an existing definition of cumulative impact which are to ensure the protection of the hydrologic balance during surface coal mining activities (68 FR 67035-67045) (Administrative Record Number WV-1382).

On September 30, 2005, the District Court vacated the Secretary's approval of the State's deletion of its definition of "cumulative impact" and its addition of the definition of "material damage to the hydrologic balance outside the permit area". In response to the Court's decision, on November 1, 2005, OSM sent the WVDEP a 30 Code of Federal Regulations (CFR) Part 732 notification stating that the State cannot implement the new definition of "material damage to the hydrologic balance outside the permit area," and it must amend the West Virginia program to include the deleted definition of "cumulative impact" (Administrative Record Numbers WV-1439 & WV-1454-A).

On November 22, 2005, the Court issued an amended judgment order that directed OSM to instruct the State that it may not implement the deletion of the definition of "cumulative impact" nor the addition of the definition of "material damage to the hydrologic balance outside the permit area". The Court clarified that the State must enforce the State program as approved by OSM prior to the amendments. In response to the Court's decision, on January 5, 2006, OSM sent WVDEP a letter rescinding the November 1, 2005, 30 CFR Part 732 notification and informing the State that the definition of "cumulative impact" remains part of the approved West Virginia program and, as such, must be implemented by the State. OSM also stated that the definition of "material damage to the hydrologic balance outside the permit area" remains disapproved and cannot be implemented (Administrative Record Numbers WV-1454 & WV-1456).

On January 18, 2006, the DOI appealed the District Court's Judgment Order of September 30, 2005, and the Amended Judgment Order of November 22, 2005, to the U.S. Court of Appeals for the Fourth Circuit. On December 12, 2006, the Court of Appeals affirmed the District Court's ruling to vacate and remand OSM's approval of the State's definition of material damage. In its opinion, the Court of Appeals ruled that OSM failed to comply with the rulemaking procedures set forth in section 553 of the Administrative Procedures Act. In addition, OSM's failure to properly analyze and explain its decision to approve the State's definition of material damage rendered that action arbitrary and capricious.

On March 22, 2007, the State resubmitted a program amendment that is intended to repeal its definition of "cumulative impact" and add a definition of "material damage" to the hydrologic balance outside the permit area. A public comment period on the program amendment was announced in the *Federal Register* on May 17, 2007. The public comment period closed on June 18, 2007, but it was extended through June 22, 2007. As further discussed in Section VII.D.1, the proposed amendment is currently under review by OSM.

b. West Virginia's Alternative Bonding System:

West Virginia Highlands Conservancy v. Secretary Dirk Kempthorne, DOI, Civil Action No. 2:00-1062 (S.D. W.Va.)

On March 28, 2007, the West Virginia Highlands Conservancy (WVHC) filed a motion with the U.S. District Court for the Southern District of West Virginia to reopen litigation against the DOI regarding OSM's approval of changes to the State's alternative bonding system. The WVHC maintained that the West Virginia Legislature failed to follow the Special Reclamation Advisory Council's recommendation to establish a $175 million trust fund to cover future obligations for water treatment at bond forfeiture sites. In its opinion, this inaction was sufficient grounds to reopen the case. The case was assigned to Judge John Copenhaver on April 2, 2007.

On October 4, 2007, the District Court advised that it would defer ruling on the motion until April 1, 2008, after the close of the 2008 regular legislative session.

On April 1, 2008, the WVHC filed a status report with the District Court. The WVHC requested that the Court defer ruling on its motion to reopen until it became clear whether changes enacted during the 2008 legislative session would be adequate to cover the full cost of bond forfeiture reclamation, including water treatment.

On April 21, 2008, the Defendants responded to WVHC's status report. They maintained that, since the legislative changes are subject to review by OSM as a program amendment and any person who participates in the review process may challenge OSM's decision, the matter should be dismissed with prejudice. In the alternative, if the Court elects not to take this action, the Defendants recommended that deferral of the motion to reopen the case or a denial of said motion, without prejudice, would be appropriate.

On May 15, 2008, Judge Copenhaver issued a memorandum opinion and order in this case. Judge Copenhaver acknowledged that the Legislature adopted Committee Substitute for Senate Bill 751 and increased the special reclamation tax on coal to 7.4 cents per ton, but, without further legislative action, it would be in effect for one year. The Court deemed it inappropriate to dismiss this action in view of the unsettled nature of the matters remaining in controversy. In addition, the Court deemed it unnecessary for WVHC's motion to reopen to remain pending contingent upon events that may occur well into the future. Therefore, the Court ordered that WVHC's motion to reopen be denied without prejudice to its renewal at a later date; that WVHC's motion to defer be granted insofar as it seeks denial of the motion to reopen without prejudice to its renewal later in the case, and denied in all other respects; and that this civil action be retained on the inactive docket pending further order.

c. Complaints 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.)

On March 28, 2007, the West Virginia Highlands Conservancy (WVHC) and the West Virginia Rivers Coalition (WVRC) filed a Notice of Intent to Sue (NOI) the WVDEP under Section 505 of the Clean Water Act (CWA) and Section 520 of SMCRA for violations of those statutes at bond forfeiture sites in the State.

On June 28 and June 29, 2007, the WVHC and the WVRC also filed complaints for declaratory and injunctive relief with the U.S. District Courts for the Southern and Northern Districts of West Virginia, respectively.

In the complaints filed in the U.S. District Courts, the WVHC and the WVRC allege that the WVDEP has failed to treat AMD discharges at three bond forfeiture sites in the southern part of the State. According to the WVHC and the WVRC, the WVDEP has violated Sections 301(a) and 402 of the CWA by discharging pollutants from point sources into waters of the United States without obtaining National Pollutant Discharge Elimination System (NPDES) permits under the CWA.

In both complaints, the WVHC and the WVRC request the District Courts to declare that WVDEP is in violation of the CWA and to order WVDEP to apply for and obtain NPDES permits for each of the point source discharges from the 21 bond forfeiture sites within 30 days.

On August 2, 2007, the WVDEP filed answers to both complaints with the District Courts.

On August 9, 2007, the U.S. District Judge Copenhaver issued a discovery and scheduling order regarding the complaint that was filed in the Southern District concerning the three bond forfeiture sites. U.S. District Judge Keeley issued a discovery and scheduling order on August 13, 2007, regarding the complaint that was filed in the Northern District concerning the 18 bond forfeiture sites.

On October 17, 2007, Judge Keeley issued a final scheduling order for the case pending in the Northern District Court.

On March 12, 2008, the WVHC and the WVRC filed a motion for summary judgment and declaratory and injunctive relief. The Plaintiffs requested that the Southern District Court declare WVDEP in violation of the NPDES permitting requirements for its discharges of pollutants from the nine point sources identified in the motion. In addition, they requested that the Court grant injunctive relief requiring WVDEP to apply for and obtain NPDES permits for discharges from the nine point sources within six months of the Court order; provide a monthly status report to them on the progress of the permitting process; and notify them and the Court when the permits are issued. On March 12, 2008, the WVHC and the WVRC filed a memorandum in support of their motion for summary judgment and declaratory and injunctive relief.

On April 4, 2008, WVDEP filed a response to the Plaintiffs' memorandum in support of their motion for summary judgment and declaratory and injunctive relief. The WVDEP maintains that discharges from forfeited mine permits are nonpoint sources, and both the Environmental Protection Agency (EPA) and OSM classify them as AML discharges.

On May 19, 2008, Judge Copenhaver issued an Order declaring that, based on a joint motion by the parties, all remaining dates and deadlines in this action, with the exception of the trial set to commence on July 1, 2008, are continued generally. On June 16, 2008, Judge Copenhaver also ordered that the trial scheduled for July 1, 2008, be continued generally because the parties agreed that there are no contested fact issues to be tried in this case.

On June 9, 2008, the Plaintiffs and the Defendant filed a stipulation with the Northern District Court regarding each of the 22 bond forfeiture sites that were the subject of that litigation.

On June 13, 2008, Judge Kelley issued an Order extending the deadline to August 1, 2008, by which summary judgment motions must be filed, and responses to those motions must be filed by September 2, 2008.

d. Notices of Intent to Sue/Complaints Regarding Selenium:

On March 2, 2007, the West Virginia Highlands Conservancy (WVHC) and the Ohio Valley Environmental Coalition (OVEC) filed an NOI with Hobet Mining Company, LLC (Hobet) under Section 505 of the Clean Water Act (CWA) and Section 520 of SMCRA concerning violations of selenium effluent limitations and monitoring and reporting requirements.

As mentioned last year, the NOI alleged that Hobet has and continues to violate effluent limitations under its NPDES permit as a result of its discharge of selenium into waters of West Virginia in excess of its NPDES Permit No. WV1017225 and in violation of certain State regulations promulgated under SMCRA and conditions of Permit No. U-5007-98.

On June 29, 2007, the WVHC and OVEC filed a complaint for declaratory and injunctive relief and for civil penalties against Apogee Coal Company, LLC and Hobet Mining, LLC with the U.S. District Court for the Southern District of West Virginia, 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 May 27, 2008, Judge Chambers dismissed a WVDEP NPDES compliance order that gave Apogee three years to clean up a selenium violation at a mine in Logan County. Judge Chambers found that the WVDEP had wrongly issued that order without a public comment period. Apogee was given 30 days to submit a compliance plan and another 90 days after that to implement the plan or show why it could not do so. Judge Chambers later gave Apogee until July 24, 2008, to provide a timetable for its efforts to end its selenium violations. Because the outfalls on Hobet's NPDES Permit No. WV1017225 were overbonded by another permit and lawfully deleted, the Plaintiffs dropped their claims against Hobet under the CWA.

As also discussed last year, on June 29, 2007, the WVHC and OVEC filed another NOI with Hobet concerning violations of effluent limitations for selenium at other Hobet operations that include: WV Surface Coal Mining and Reclamation Act (WVSCMRA) Permit Nos. S-5002-03, S5003-96, S-32-85, O-5010-97, S-5016-92, S-5029-91, S-5026-89, S-5080-88, and U-5014-95; and NPDES Permit Nos. WV1020889, WV1021028, WV1016776, and WV0099392.

On February 2, 2008, the WVHC and OVEC filed a complaint for declaratory and injunctive relief and for civil penalties against Hobet Mining, LLC (Hobet) with the U.S. District Court for the Southern District of West Virginia. Ohio Valley Environmental Coalition, Inc., and West Virginia Highlands Conservancy, Inc. v. Hobet Mining, LLC, Civil Action No. 3:08-0088, (S.D. W.Va.). The complaint alleges unlawful discharges of selenium at Hobet's West Ridge Surface Mine, Permit No. S-50003-96 and NPDES Permit No. WV1016776.

According to the Plaintiffs, the allegations in this complaint are nearly identical to those set forth in Civil Action No. 3:07-cv-00413 described above.

Hobet filed an answer to the complaint on April 4, 2008.

On April 16, 2008, Judge Chambers entered a scheduling order and notice in this case. Since then, several motions with supporting briefs and memoranda have been filed by both parties with the Court. A decision in this case is expected in the near future.

In a related case, between February and April 2007, WVDEP issued five NOVs against Hobet for violations of State effluent limitations at several of its permits. Before taking the enforcement actions, the State also initiated civil action against Hobet before the Boone County Circuit Court. In January 2007, WVDEP took legal action against Hobet for failing to meet water quality standards and effluent limitations for discharges from two of its NPDES permits, as reported in its NPDES discharge monitoring reports. Hobet appealed both actions to the West Virginia Surface Mine Board.

On June 6, 2008, the Surface Mine Board found that Hobet's argument that the WVDEP is without authority to require a selenium treatment plan as a remedial measure for a surface mining NOV is contrary to the State's Surface Mining Reclamation Regulations. The Board found that the State Water Pollution Control Act gives WVDEP authority to pursue any and all remedies it may have to prevent water pollution, simultaneously. The Board also found that the lawsuit against Hobet, pursuant to the Water Pollution Control Act, does not restrict in any way the WVDEP's ability to take other actions to attempt to bring Hobet into compliance with its obligations of that Act. Therefore, the Board denied Hobet's motion for summary judgment and affirmed WVDEP's issuance of the NOVs against Hobet.

In June 2008, the Environmental Quality Board issued another decision upholding most of WVDEP's actions, but it criticized the agency for granting coal companies blanket compliance extensions. The WVDEP appealed three parts of the ruling to the Kanawha County Circuit Court. A hearing was scheduled for July 18, 2008.

Hobet entered a settlement agreement in July 2008 to resolve WVDEP's lawsuit in Boone County Circuit Court regarding the company's selenium violations. The settlement agreement requires Hobet to pay $1.48 million in fines. The settlement agreement also requires Hobet to spend $2.6 million on supplemental environmental projects. This part of the agreement requires Hobet to give WVDEP $500,000 worth of rocks, perform two selenium studies at a cost of $300,000 each, and get credit of $1.5 million for installing two selenium treatment systems at its mines. The settlement agreement gives Hobet until December 31, 2009, to install the selenium treatment systems, and compliance is not required until April 5, 2010.

V. Success in Achieving the Purposes of SMCRA as Determined by Measuring and Reporting End Results

A. Off-Site Impacts

During the evaluation year, OSM conducted a document review of all West Virginia Notice-of-Violation records for non-forfeited coal mining permits to determine the effectiveness of the State program in protecting the environment and the public from off-site impacts resulting from surface coal mining and reclamation operations. The evaluation revealed that 1,707 of the State's 1,824 currently bonded permits were off-site impact free (94 percent).

During this evaluation period, the State conducted 24,401 inspections on non-forfeited permits and issued 988 enforcement actions. Of these enforcement actions, 192 off-site impacts were found on 117 permits. In comparison to last year's 180 impacts on 129 permits, the number of off-site impacts has generally stayed the same.

This year WVDEP inspectors categorized all but one of the off-site impacts on non-forfeited permits as minor. Hydrology, which accounts for 54 percent of the off-site impacts, remains the most common type of impact. This category has changed modestly from the percentages reported last year. In addition, 31 percent of the off-site impacts relate to land stability, less than 1 percent relates to blasting, and the remaining 14 percent represents encroachment by mining companies. The figures representing resources affected, degree of impact, and type of impact can be found in Table 4.

During the reporting period, the State's Office of Special Reclamation (OSR) maintained a data base or inventory of forfeited permits that included information regarding any off-site impacts. OSM reviewed the inventory and quarterly reports provided by OSR to evaluate the effectiveness of the bond forfeiture program to protect the public and the environment from off-site impacts.

During this review period, eleven permits were forfeited (collected and uncollected) and added to the Bond Forfeiture Inventory. None of the eleven forfeited permits were reported to have any off-site impacts.

Table 4 of this report reflects 56 permits with hydrology type off-site impacts for the review period. Fifty of the 56 permits were identified during previous evaluation periods, but continued to have off-site water quality impacts and are therefore included in the total for this review period.

B. Reclamation Success

The effectiveness of a State program in ensuring reclamation success can be based on the number of acres that meet State bond release standards, including postmining land use, and have been final released by 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 or a variation thereof. Phase II bond 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 streamflow or runoff outside the permit area. Finally, Phase III release, or final bond release, confirms that the mine site is fully reclaimed and the approved postmining land use has been achieved. Complete restoration of land and water resources affected by mining is demonstrated by this release.

Based on the successful completion of all reclamation requirements, WVDEP granted 73 Phase III bond releases during the evaluation period totaling 7,676 acres, as reported in

Table 5. There were 43 Phase I and 42 Phase II bond releases during the year that totaled 5,363 and 2,813 acres, respectively. During the evaluation period, the individual Phase I, Phase II, and Phase III bond releases were obtained from the WVDEP Environmental Resources Information System (ERIS) database.

The State's Special Reclamation Program completed land reclamation on 41 bond forfeiture permits and installed active or passive water treatment systems on 12 permits. In addition to the permits where land and water reclamation was completed during the evaluation year, the OSR issued reclamation contracts on 15 permits for land reclamation and 1 permit for passive water treatment. The OSR continues to maintain an inventory of the State's bond forfeited sites, and oversees the reclamation of these sites.

VI. OSM ASSISTANCE – REGULATORY PROGRAM

A. Delbarton Technical Assistance

On February 12, 2008, a large blowout of water occurred at a reclaimed underground mine portal near the town of Delbarton, West Virginia. The high-volume, rapid-flowing water, gushed from behind an occupied residence (Photograph) and ran down gradient onto a State highway. The discharge overwhelmed the drainage culverts along the road and the subsequent flooding caused the road to be closed for a period of time.

(Photograph – Courtesy of WVDEP)

The WVDEP requested technical assistance from OSM to investigate the cause of the blowout and specifically determine if these types of incidents can be predicted and/or prevented. The study is ongoing and a findings report is being prepared to present to the WVDEP.

B. Coal Slurry Disposal Study

The West Virginia Legislature passed Senate Concurrent Resolution 15 in 2007 that authorized the comprehensive study of the effects of underground injection of coal slurry. This project is a study between the WVDEP and the WVDHHR-Bureau for Public Health (BPH). The WVDEP-DMR requested technical assistance from OSM on this project. This study will include:

1. An analysis of the chemical composition of coal slurry, including an inventory of organic and inorganic compounds;
2. A hydrogeological study of the migration of coal slurry or its constituent contaminants from injection wells into ground water or surface water of West Virginia;
3. An analysis of the effects of the coal slurry and its constituent contaminants on human health;
4. A study of the effects of coal slurry and its constituent contaminants on public health in communities where it is determined that coal slurry or its constituent contaminants have migrated into ground water currently or historically used for domestic purposes;
5. An environmental assessment of how the migration of coal slurry or its constituent contaminants may affect surface water and ecosystems; and
6. Any other considerations that the WVDEP and the WVDHHR-BPH decide are important.

This study is to be completed in two parts. The first part is a hydrogeological assessment of the characterization and migration of coal slurry to be completed by December 2008. The second part to be conducted by the WVDHHR-BPH is a toxicological and epidemiological that is to be completed by December 2009. Part 1 of this study will include 4 phases. Phase 1 of the study will involve the site selection process. Phase 2 will involve the review of all available documentation including SMCRA, UIC, and NPDES permits, inspection reports, and water quality monitoring data. Phase 3 of the study will involve site visits and WVDEP regional office visits, representative sampling from surface and ground water sites, preparation coal slurry, and coal samples. Phase 4 of the study will involve the compilation and evaluation of all the laboratory data and hydrogeological factors that result in and/or contribute to the migration of the slurry constituent contaminants in the hydrologic regime.

Inorganic and organic constituents in water samples and the slurry injectate will be analyzed to determine the degree of any contamination by the injection of coal slurry. The coal preparation plant permits will provide information on the source of the coal slurry. Currently there are 13 active sites in the State authorizing the injection of slurry into underground mines. Part 1 of the hydrogeological assessment is scheduled to be complete by December 2008. The WVDHHR will use this information to assist in the completion of Part 2, the toxicology and epidemiological aspects of SCR-15.

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

A request from the WVDEP resulted in an OSM Applied Science Project, which is a continuation of the assessment of northern West Virginia mine pools. This is an update to the results reported in Ziemkiewicz *et al.* (2004), which reported data for wells with pressure transducers installed within this study area. The goal of this investigation was to locate mine discharges and gather information on mine pools in abandoned coal mines. The focus of the investigation was on two separate areas of the Pittsburgh coal basin in West Virginia: a) the eastern side of the basin from between Fairmont, WV and Mt. Morris, PA, (Monongalia and Marion Counties, WV, plus contiguous mines in Greene County, PA), and b) the western side of the basin (Marshall, Ohio, and Brooke Counties, WV, plus contiguous mines in Washington and Greene Counties, PA) The eastern area lies fully in the Monongahela River drainage, while the western side lies in the Ohio River drainage.

Mine pool elevations in the Morgantown and Fairmont pools reached the fully flooded stage in about 2005 and are currently being maintained near this condition by pumping to treatment plants. The Fairmont pool has reached near static water level conditions, maintained by pumping and treatment at Hagans Shaft and Booth pump locations in the Jordan Mine. The water levels in the Morgantown pool continue to fluctuate substantially. The variation is due to pumping schemes intended not only to maintain pool levels, but also to lower pool elevations in Humphrey, Pursglove, and Osage mines to below the level of intended mining in the overlying Sewickley seam. Therefore, water levels in these mines have actually receded from full-flooding levels.

The study has demonstrated that in the northern panhandle, mine discharges have been linked to probable source mines. Roughly, half of the discharges mapped in Ohio County flow to the City of Wheeling sanitary sewer system at tap locations mapped by the City. The other half flow to storm sewers or surface streams before joining the Ohio River. These diversions of pre-law mine discharges have occurred most recently during AML reclamation projects. The waste water treatment plant for the City of Wheeling is currently operating well below its design capacity and is capable of treating all the mine discharge water that currently flows to surface streams.

D. Lexington Coal Company (LCC) Monitoring / Horizon Bankruptcy

As reported in prior years, 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 that included the formation of Lexington Coal Company (LCC). The LCC was to work with the surety companies and complete the reclamation of those permits that were not sold. As reported in EY 2006, OSM and several states renegotiated with the surety companies to end their direct involvement in the administration of the reclamation activities by replacing the surety bonds with letters of credit. This action has resulted in less outlay of capital for administrative purposes and more funding for land and water reclamation.

The LCC's primary responsibility now is to complete the 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 last year, there were 16 permits in West Virginia still requiring land reclamation through LCC. The LCC is actively reclaiming all of these permits, and they were at various stages of bond release at the end of the reporting period. In addition, it has been determined that two of these permits will require water treatment. OSM has entered a water treatment trust agreement with LCC in Tennessee. The WVDEP plans to enter a similar agreement with LCC for water treatment at these two permits. The WVDEP anticipates having all of these permits reclaimed and the water treatment trust agreements executed by the end of 2008.

E. Technical Training – Technical Information Processing System (TIPS) and National Technical Training Program (NTTP)

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 National Technical Training Program (NTTP) and the Technical Information Processing System (TIPS). During EY 2008, WVDEP sent 55 regulatory staff to NTTP courses and 7 regulatory staff to TIPS courses. In addition, OSM makes online training courses available for various subjects through its TIPS training program. During EY 2008, the WVDEP staff participated in 1 of these online courses.

F. Surface Mining Drainage Changes

This investigation examined two independently constructed, high-resolution, elevation models for two watersheds in Southern West Virginia—Scrabble Creek, and Sycamore Creek. A comparison of elevations and imagery for the two watersheds indicated no substantive topographic changes between acquisition dates of the two Digital Elevation Models (DEMs). Sycamore Creek shows no recent mining activity, and Scrabble Creek's mining operations were reclaimed or inactive during this time.

The increasing availability of elevation data products and data collection technologies suggests the possibility of characterizing landform change over time. Such a capability is particularly applicable to areas affected by surface mining. The availability of multi-date elevation models acquired during pre-mining and post-mining conditions immediately suggests two categories for analysis — the first involving locations and volumes of cut and fill areas, and the second relating to surface drainage patterns. Two preliminary investigations relating to the latter category were conducted for this report, with the objective of providing an initial insight into the problems and possibilities for characterizing drainage changes resulting from surface mining. The first investigation examined streams and drainage catchments produced by two high-resolution elevation models for areas where no significant mining had occurred. The goal of the second investigation was to identify actual drainage changes due to mining activity.

The comparison of two high-resolution DEMs for Scrabble Creek and Sycamore Creek watersheds in Southern West Virginia indicated several discrepancies in how the datasets delineated surface drainage routes. These discrepancies produced some apparent changes in drainage even though no mining activity had occurred. Differences between the two stream networks did not appear to arise out of significant differences in the source data. Significant differences occurred when accumulated drainage was interrupted by a bench cut into the hillside or by a ditch. It can be speculated that benches are relatively flat, making it difficult to model drainage direction. Ditches and roads are relatively shallow features that may be modeled well enough to catch and redirect drainage. These investigations indicate that changes in drainage catchments can be estimated under certain circumstances, but not in all circumstances. The process resists automation, and often requires interpretation of multiple data products, including elevation contours, hillshade images, flow accumulation grids, and optimally, high-resolution photography.

G. Reforestation Activities

The trend continues to return more mine sites to a postmining land use requiring tree planting. During EY 2008, the WVDEP issued 58 new surface mine permits most of which proposed forestland as the postmine land use. All of these permits contain reclamation plans that require the implementation of the Forestry Reclamation Approach (FRA).

Over 3.5 million trees were planted in 2007 on over 5,800 acres of West Virginia mine sites. It is not known how many acres were planted using FRA. Through OSM oversight

inspections, it is apparent that some permittees and operators, as well as some state inspectors, are reluctant to implement changes in regulations and permitting requirements with respect to the FRA. Improper selection of growth medium and over tracking are still practices on some sites with forestland as the postmining land use.

WVDEP and OSM provided additional training for their inspectors, managers, and permit review staff regarding the requirements of properly implementing FRA. The training included a review of the rule changes and permitting requirements for permits with a postmining land use of commercial forestry and forestland, and site visits to demonstrate proper FRA techniques.

There were 3,200 acres approved for Phase III bond release in 2007. Two thousand ten acres (85 percent) were planted in trees, broken down by land use as 865 acres of forest, and 1,845 acres of wildlife habitat. Four hundred ninety acres were returned to pasture, rangeland, or light industrial land uses.

The first Abandoned Mine Land project in West Virginia to include tree planting was contracted in 2007. The Kempton Refuse and AMD project included tree planting using the FRA on a 5-acre portion of the site. Tree planting was conducted in the spring of 2008.

The WVDEP and OSM presented the Appalachian Regional Reforestation Initiative (ARRI) 2008 Excellence in Reforestation Award to two operators. Fola Coal Company was presented the award for their successful implementation of the FRA on their Number 4 and 6 Mines in Clay County. Elk Run Coal Company was presented the award for their reforestation efforts on the East of Stollings permit in Boone County.

There were four Arbor Day events held by coal companies in April of 2008. International Coal Group's Birch River Operation in Webster County; Fola Coal Company's Mine Number 6 in Clay County; Elk Run Coal Company's East of Stollings permit in Boone County; and Logan County Mine Services in Logan County were the sites of this year's Arbor Day events. The WVDEP and OSM personnel gave presentations on ARRI and FRA, followed by assisting local students and teachers in planting red oak seedlings and American chestnut seeds.

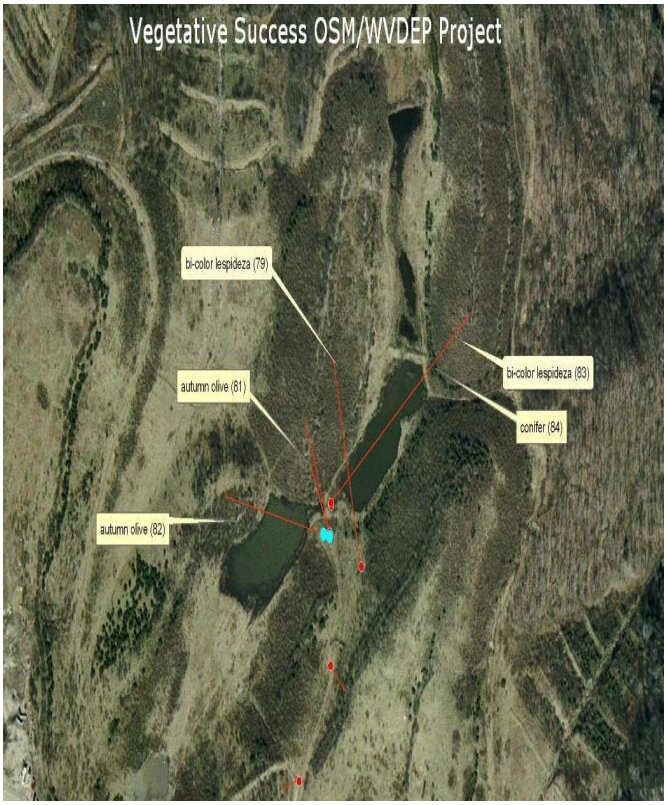
The ARRI and The American Chestnut Foundation (TACF) promoted "Operation Springboard 2008" as a joint effort to plant American chestnut seeds to test their suitability as a reclamation species on mine sites. TACF and the ARRI are partners in an effort to combine reclamation of mine sites with restoration of the American chestnut. Coal mines reclaimed under the Surface Mining Control and Reclamation Act of 1977 offer several advantages for large-scale chestnut repopulation. Millions of acres of forest surround the numerous mine sites where the wildlife inhabiting these forests will assist in spreading the American chestnut seeds from the reclamation areas into neighboring forests. The TACF has been working for 25 years to develop a blight resistant chestnut hybrid that will be used to repopulate the eastern forests. The year 2008 has been marked as the first year of a long-term effort to use mine sites as "springboards" for returning the American chestnut into the Appalachian forests.

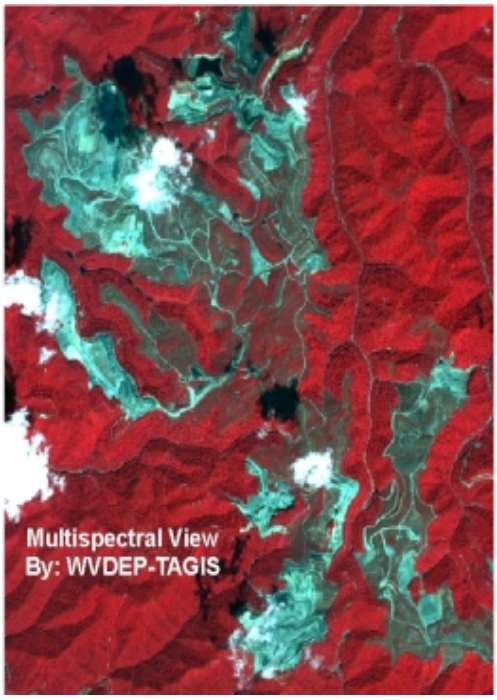
Catenary Coal Company (now Magnum Coal Company), in cooperation with West Virginia University, continues to monitor tree growth and survival on its experimental practice site in Kanawha County. This mine complex, which is being used to compare tree survival and growth in compacted and loose graded brown or gray weathered sandstone, has been visited on many occasions to demonstrate the FRA.

H. Remote Sensing

OSM, WVDEP-Technical Applications and Geographic Information Systems (TAGIS), and the WVDEP Division of Mining and Reclamation completed a study using Remote Sensing Technology to analyze vegetation success at West Virginia surface coal mines. The reclamation activities such as vegetation success and land cover changes were completed at two southern West Virginia mountaintop mines. The study used remote sensing technology that was available from commercial satellites and low altitude aerial color photography. The acquired false-color infrared imagery was at 2.5 meters resolution with the panchromatic (B&W) at a higher resolution of 0.5 meter. These QuickBird images were ortho-rectified and posted on WVDEP's database for review. The results of the analysis of the vegetation was compared with the surface mine permits and reclamation plans to determine if satellite and/or aerial photographic imagery was capable of determining land cover changes over time. There is a particular interest in the refinement and adoption of this technology as a cost-effective aid for mine reclamation inspectors to evaluate success of reclamation, and to determine vegetation success over time. A site visit was made in 2007 to the Catenary mine complex to ground-truth the QuickBird images from OSM. Staff from TAGIS used the Global Positioning System (GPS) Camera to document and locate vegetation types on site and compared it to the aerial photography for both the Hobet and Magnum mine sites.

To reduce costs for the project, it was first proposed that Magnum Coal Company would have both 2007 QuickBird imagery and the aerial photography, while the Hobet site was to have the satellite imagery and use the 2003 aerial photography data. The 2003 data was not available for the Magnum Coal Company site. The acquisition of both the 2007 satellite and aerial photography was to compare the aerial photography complimented by the QuickBird satellite imagery to detect changes in vegetation types and success. The 2007 satellite imagery can determine any prevailing drought conditions reflected for that period. No determination has been made to the potential effectiveness of the 2007 imagery of drought-affected vegetation compared to the non-drought conditions in 2003. In September 2007, WVDA contracted a firm to fly the entire state to acquire aerial photography at 1-meter resolution, which will be in true color and false-color infrared. This data once secured will be converted to a 2.5-meter resolution to correspond with the QuickBird imagery for the Magnum site vegetation evaluation. TAGIS staff started field work that will be used to determine, compare, and classify vegetation types growing on the reclaimed surface mine with the satellite and aerial photographic images (as shown in the following photos).


Vegetative Success OSM/WVDEP Project
bi-color lespideza (79)
bi-color lespideza (83)
autumn olive (81)
conifer (84)
autumn olive (82)


Multispectral View
By: WVDEP-TAGIS

VII. General Oversight Topic Evaluations – Regulatory Program

A. Oversight Inspections

During EY 2008, the CHFO conducted 265 inspections to evaluate West Virginia's program. Also, as part of the oversight inspection process, we conducted a review of West Virginia's bond release activities. Our findings for these review activities follow. The following is a breakdown of the inspections by type.

Citizen Complaint Referral	2
Bond Release Review	37
Bond Release Review – AMD	8
Sample Inspection – Comprehensive	118
Sample Inspection – Partial	91
Other	5
Federal Follow-up	4
	265

A total of 265 on-the-ground inspections were conducted. Eighty-three violations of the State program were observed on 52 of the 265 inspections. This shows that violations of the State program were observed on 19.6 percent of the inspections.

Most of the identified state program violations were properly handled by the State. Eleven of the violations had been previously cited, 65 were cited at the time of the inspection. Seven violations resulted in the issuance of Ten-Day Notices (TDN). State responses have been determined to be appropriate on four of the TDN violations. The WVDEP has responded to the remaining TDN's. The responses are being evaluated by OSM.

Following is a breakdown of violations by type.

Administrative

Mining Within Bonded Area	2
Terms and Conditions of Permit	8
Temporary Cessation	2

Hydrologic Balance

Drainage Control	15
Inspections and Certifications	9
Siltation Structures	1
Discharge Structures	2
Diversions	2
Effluent Limits	4
Ground Water Monitoring	3
Surface Water Monitoring	6
Stream Buffer Zones	1
Hydrologic Balance – Other	5

Backfilling and Grading

Exposed Openings	2
Contemporaneous Reclamation	6
Highwall Elimination	1
Handling of Acid and Toxic Materials	1

Excess Spoil Disposal

Drainage Control	1
Surface Stabilization	1
Inspections and Certifications	1

Coal Mine Waste (Refuse Piles and Impoundments)

Drainage Control	1
Placement	1
Inspections and Certifications	1

Use of Explosives

Warnings and Records	1
Control of Adverse Effects	2
Other	1

Subsidence Control Plan

Other	1

Roads

Drainage	1
Surfacing and Maintenance	1
Tota Violations	83

Bond Release

This review consisted of on-the-ground inspections of bond released sites. Our on-the-ground review consisted of sites that were in varying stages of release. In addition to randomly selecting sites for review, OSM conducts an inspection on any site for which a release is requested, especially if the site is listed on the AMD inventory. Site reviews included: 21 - Phase I, 38 - Phase II, and 4 sites on which Phase III release had been granted. OSM also conducted an on-the-ground review of 30 sites that had requested a Phase III release and the release had not yet been approved.

Overall, the sites inspected demonstrated satisfactory reclamation and show that West Virginia is conducting its bond release program in accordance with applicable law, regulations, and policies. The reported bond release activities can be used as indicators of standards of reclamation success.

Aerial Inspections

This evaluation focused on sites that received a Phase II or Phase III bond release since January 1, 2007. The review was conducted in counties that have been determined to have a high probability for AMD. The sites were reviewed to see if seeps, which had not been previously identified, were present and to see if the approved post-mining land use had been achieved.

The sites to be reviewed were randomly selected from a list of sites that had received a Phase II or Phase III release between January 1, 2007 and December 31, 2007.

Thirty sites were reviewed. The approved postmining land use appears to have been achieved.

B. Slurry Impoundment Breakthrough

In 2000, OSM and the WVDEP began a technical review of the potential for slurry breakthrough into active or abandoned underground mine workings at coal slurry impoundments. Specifically, the review covered the WVDEP permit review process, with regard to breakthrough potential. Seven impoundments, all of which were completed, were evaluated in the initial study. This study was completed in 2005.

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 impoundments. Construction was not complete at any of these impoundments. During EY 2008, evaluations of the three impoundments were completed and reports submitted to the WVDEP. Concerns with the WVDEP review were identified at two of the three impoundments. A final summary report has been submitted to the WVDEP.

Issues identified during the second phase of the study included design and geotechnical issues and one issue related to differences in interpretation of regulations. Unresolved issues included:

- Adequacy of remediating underground mine openings and remaining coal barriers where mined seams intersected the impoundment along strip benches; and

- Adequacy of geotechnical investigation of mineable seams within basin or embankment safety zones to determine if they had been mined.

The issue related to the interpretation of State regulations concerning the applicability of a requirement to remediate mine voids within embankment and basin safety zones.

In the cases of disagreement with a WVDEP issued permit, OSM is coordinating with MSHA to assure that the OSM issues raised during the review of the State permit are considered by MSHA in its approval of slurry disposal. OSM plans to continue oversight of this topic.

C. Outcrop Barrier / Downslope Incidents

We monitored the State's efforts to implement their regulation and policies regarding constructed outcrop barrier design and certification. We did not observe any problems

concerning outcrop barriers or downslope violations while conducting our inspection activities. We believe the State has adequately implemented the recommendations of our EY 2006 evaluation.

D. Program Amendment Status/Program Maintenance

Program Amendment Status

1. Regulatory Revisions Regarding Hydrologic Impacts of Mining:

On March 22, 2007, WVDEP resubmitted an amendment to its Surface Mining Reclamation Regulations (Administrative Record Number WV-1485). The amendment revises its regulations concerning the potential hydrologic impacts of surface and underground mining operations. The proposed amendment is intended to repeal the State's definition of "cumulative impact", and add a definition of "material damage" to the hydrologic balance outside the permit area. In addition, the State submitted a 13-page explanation of why it believes the amendment is no less stringent than SMCRA and no less effective than the Federal regulations; a copy of the State's Requirements Governing Water Quality Standards at 47 CSR 2; and a copy of the United States District Court for the Southern District of West Virginia decision Ohio River Valley Environmental Coalition, Inc. (OVEC), et al., vs. Callaghan, et al., Civil Action No. 3:00-0058, dated March 8, 2001.

OSM approved an earlier submittal of this same amendment on December 1, 2003 (68 FR 67035), but that approval was vacated and remanded by the United States District Court for the Southern District of West Virginia on September 30, 2005. The United States Court of Appeals for the Fourth Circuit affirmed the lower court's ruling on December 12, 2006.

On May 17, 2007, OSM announced receipt and a public comment period on a proposed amendment in the *Federal Register* (72 FR 27782-27787). The public comment period closed on June 18, 2007. OSM sought comment on whether the proposed amendment and the supporting arguments and explanations presented by the State are consistent with the Federal hydrologic protection requirements under SMCRA.

OSM met with the State on October 23, 2007, to discuss the proposed submission and to provide the State various options regarding it. The State advised OSM subsequent to the meeting that it would like a letter clarifying the specific issues of concern regarding the proposed amendment. A letter was prepared in response to the State's request. The amendment and letter were undergoing further review at the end of the reporting period.

2. Statutory/Regulatory Amendments:

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, 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 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 relating to the State's alternative bonding system, 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. A final decision on all of the requirements will be made at a later date.

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. OSM will render a final decision on those requirements at a later date.

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 in 2006, 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 the Federal 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).

All litigation concerning those Federal requirements has been resolved. In addition, OSM published final ownership and control regulations in the *Federal Register* on December 3, 2007 (72 FR 68000-68031). OSM will notify the State when its program will have to be revised in response to those Federal revisions.

E. Liability Insurance

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.

Last year, a team of 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 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, a few insurance companies responded to the request for information.

During this evaluation year, to improve the response rate, the State resent the questionnaire electronically to those insurance companies that did not respond to the initial inquiry. Unfortunately, the team received one additional reply. Out of the 20 insurance agents that have been contacted, the team has received three complete and one partial response. Alternative measures to get the information are currently under consideration. Because this review has not been completed, it will be continued into the next evaluation period.

F. Permit Amendment Review

During this evaluation year, a joint State/Federal team was created and a work plan was executed to complete a customer service review involving permit amendments. The State's permit amendment requirements were approved by OSM in February 1996.

The evaluation found that the State is properly implementing its Permit Amendments Policy dated March 5, 1998, and its statutory requirements at West Virginia Code §22-3-19(b)(3), which basically provide that a permittee may add a new area to his or her existing permit if the permit amendment application is subject to all the requirements and procedures applicable to the application for the original permit. The State's policy provides that a permit amendment is restricted to extensions of the mining area contiguous to the original permit area, not including haulroads. The type of mining in the original permit is allowed under a permit amendment. In addition, amendment acreage is limited to no more than 35 percent of the original permitted acreage. Variances to the 35 percent limit may be approved by the Secretary on a site-specific basis.

Because the primary purpose of most permit amendments is to add new area to an existing operation, the State's permit amendment process provides that each permit amendment must comply with all of the requirements applicable to a new permit. To ensure adequate public participation, a 4-week legal advertisement is required for each permit amendment, along with a 30-day public comment period and opportunity for public hearing. The State documents its written facts and findings for each permit amendment that is included in the permit file for the original permit.

As a result of this review, some areas were identified where the State's permit amendment process could be improved. Most of the areas needing improvement relate to forms and tracking.

The State is in the process of revising its Permit Amendments Policy. The WVDEP has agreed to revise its permit amendment application form and review documents. In addition, ERIS will be evaluated to ensure the completeness and accuracy of data relating to permit amendments.

G. Incidental Boundary Review

At the request of a citizens group, another customer service review was initiated at the end of the evaluation year regarding incidental boundary revisions (IBRs). State law provides that any extension to an area already covered by a permit, except IBRs, must be made by application for another permit. The State further clarified this statutory requirement by promulgating IBR regulations at CSR 38-2-3.29. A series of changes to those regulations were approved by OSM over the years, with the latest being in March 2006.

During the evaluation year, a joint State/Federal team was created to evaluate the State's implementation of its IBR requirements. A work plan was signed on May 1, 2008, and the team began assessing the number of IBRs that have been approved by the State. From January 1, 2005, through March 31, 2008, the State has issued approximately 1,200 IBRs. From this total population, the team will select at least seven IBRs for review.

Given the late start, this review was not completed by the end of the reporting period. A final report on this topic will be prepared during the next evaluation year.

H. Bond Forfeiture – Special Reclamation of Sites with Third Party Liabilities

For more than seven years, the 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 completion of reclamation for 27 of the 42 permits. The 27 permits became the subject of further

analysis during the 2007 evaluation year and that review carried over into the 2008 evaluation period. The report of the findings from that review is projected to be completed during the early part of the 2009 evaluation year.

Findings from the 2006 review also identified several procedural issues to be addressed by the WVDEP and are part of the current study. Those procedural issues include:

- The need for better communication and coordination between various WVDEP divisions;
- Inadequate tracking procedures to monitor the implementation of third party agreements to ensure reclamation work is completed; and,
- The lack of routine inspections on third party reclamation sites.

I. Bond Forfeiture Inspection Frequency

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 forfeited sites. 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 forfeited sites.

Last year, OSM modified State inspection forms so they could be used to inspect bond forfeiture sites. After reviewing the forms, State officials advised OSM that the existing Special Reclamation Inspection Report Form, which is used mainly to monitor contractor activities, and the Reclamation Permit Liability Report could be modified to satisfy the intended requirements. OSM agreed not to mandate the use of State regulatory inspection forms, but it advised the State that it must specify the measures that it plans to take to demonstrate compliance with this part of its approved program.

During the evaluation year, 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 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.

The State also revised its Monthly Compilation Report form for tabulating the three types of inspections. The Special Reclamation Program started using the revised inspection forms and the Monthly Compilation Report form on May 1, 2008.

OSM has acknowledged the adequacy of the revised reports for inspection and contractual purposes. However, the State still has to 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 it can reduce the inspection frequency of bond forfeiture sites. OSM will continue to work with the State during the upcoming year to implement these requirements.

J. AMD Inventory of Active Permits

As previously reported, the WVDEP completed AMD inventories of active mining sites in 1994, 1996, 1998, and 2000. In September 2002, the State completed an action 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 State inspection report form (DMR-6) was modified to indicate which sites were treating water.

There are approximately 370 active, bonded permits in the State with appreciable water treatment costs. These permits have approximately 556 NPDES outlets. Thirteen permits on the list were issued after 1999.

In February 2008, the team prepared a decision/option paper and made a presentation of its preliminary results to management. While existing State databases and files contain relevant information, the team advised management that the available water treatment data is not sufficient to complete the project. In addition, five tasks remain that would require additional time and resources to complete.

The remaining tasks relate to approximately 190 permits that require additional investigation for:

- flow and water quality data for approximately 15 to 20 percent of the sites;
- information regarding pumped discharge rates at underground mines;
- flow and chemistry data to estimate water treatment costs; and,
- reporting system.

Management was presented options for the completion of each task. The team is awaiting further guidance from the State. State officials have approached industry about getting involved in this project.

K. Blackwater Spills

The ongoing review is a follow-up to a 2004 blackwater spills review. The purpose of the study is to compare the number and seriousness of the spills that occurred during the previous blackwater evaluation, with the seriousness and number from a recent period of time and determine if the recommendations from the previous report had been sufficient in reducing the number of blackwater discharges. Information has been collected for the blackwater spills that occurred between July 2003 and February 2006, and analysis is ongoing to compare these events with those during the July 2000 to February 2003 time period. The study is also reviewing the enforcement actions of both time periods, including consent agreements.

L. Birch River

OSM monitored the State's efforts to implement Team recommendations resulting from our joint OSM/WVDEP investigation into the Birch River incident that occurred in June 2006. Heavy rainfall and erosion of a durable rock fill had caused pollution of the Birch River. During the course of our inspection activities, we did not observe any conditions similar to what led to that incident. We believe the State has adequately implemented the Team's recommendations.

M. Storm Water Run Off Analysis (SWROA) Effectiveness

In 2007, engineers from OSM and the WVDEP formed a team with the task of evaluating the effectiveness of implementation of the new Storm Water Runoff Analysis (SWROA) rule. The team reviewed five SWROAs, selecting one SWROA from the jurisdiction of each of the four WVDEP permit review offices, and a second from the Logan Office. The sampled SWROAs were related to mines that were located in steep slope regions, regions currently producing coal, and regions currently implementing the SWROA in the field.

During EY 2008, evaluations of all selected sites were completed and a report will be prepared during the next evaluation year.

N. Staffing

OSM completed an analysis of the adequacy of the State's regulatory program staff in 2005 and an updated staffing analysis completed in 2006. Areas of specific interest included the NPDES positions that are being funded under the Administration and Enforcement (A&E) Grant, the reimbursement rate for the Special Reclamation Program, and the permitting staff workload.

During this evaluation year, the State's regulatory program staff totaled 269.6 full-time equivalent (FTE) positions, and it included 13 vacancies. The number of vacancies declined by 48 percent, due to the State's decision to abolish some long vacant positions. The total regulatory program staff has 9.2 FTE positions less than last year.

The NPDES positions funded under the current A&E Grant remain about the same and comprise 37 percent of the State's permitting staff. The State is aware that these positions are eligible for EPA funding, if future OSM grant awards are less than anticipated.

The State's current permitting staff has 83.4 FTE positions. This is about two positions less than what OSM authorized last year. In addition, there are seven vacancies in the Permitting Section. State officials have acknowledged that they are finding it difficult to fill some technical positions. Given the State's permitting workload and the number of vacancies, OSM has encouraged the State to be more aggressive in filling these vacant positions.

There are 19.94 FTE positions within the Special Reclamation Program that are currently being funded through the A&E Grant. This program completes the reclamation, including water treatment, of bond forfeiture sites throughout the State. Bond forfeiture costs that are not directly associated with site-specific reclamation activities are allowed under the grant. OSM, in cooperation with the State, is trying to establish a reimbursement rate for the Special Reclamation Program. During this evaluation period,

data and tables were prepared on all bond forfeiture activities. Analysis of the data and tables was ongoing at the end of the review period. OSM plans to complete this project in the near future.

O. Blasting Damage Claims Procedures

The Office of Explosives and Blasting (OEB) agreed to streamline and/or reduce the time that it takes to process blasting claims. In addition, the OEB asserted that the State, not the claims administrator, makes the final decision as to the existence of blasting damage. The OEB agreed that if an enforcement action had not been issued that addressed the remedial actions associated with a finding of offsite damage, then the Secretary's order would specifically address those measures.

During this evaluation period, proposed blasting revisions were adopted by the legislature. As discussed in Section VII.D., the proposed blasting revisions are currently under review by OSM. A follow-up review to ensure that the other changes mentioned above were adopted by the OEB will begin once OSM completes the program review.

P. Off-Site Disturbance, Fly Rock

On March 26, 2008, OSM and the WVDEP entered into a work plan providing for OSM assistance in the evaluation of the effectiveness of the State program in ensuring that fly rock events were properly investigated. The review team has evaluated all fly rock events over a 4-year period ending December 31, 2007, to determine that measures were taken to address the cause, appropriate enforcement actions were issued, and remediation of the event was adequate.

Conclusions are still being evaluated, therefore this review will continue into the next reporting period.

Q. Approximate Original Contour (AOC) Consistent Definition and AOC Variance Sites v. Non-AOC variance sites

In 2008, OSM and the WVDEP began a study as a follow-up to an oversight report completed in May 1999, titled "An Evaluation of Approximate Original Contour and Post-mining Land Use in West Virginia". Under the current work plan, the study included: an comparison of the grades as measured to grades as approved in the permits; an evaluation of appropriateness of postmining land uses; and, an evaluation of the degree to which issues identified in the 1999 report have been resolved, programmatically and with regard to individual sites. In addition, a comparison was made of differences between sites to which AOC was applied, and sites for which variances had been granted.

During EY 2008, evaluations of eight selected sites were completed and a final report on this topic will be prepared during the next evaluation year.

R. Special Reclamation Fund

On May 29, 2002, OSM fully approved the State's Alternative Bonding System (ABS) that included: an increase in the special reclamation tax rate from 3 cents per ton of clean coal mined to 14 cents, with 7 of the 14 cents expiring after 39 months; the creation of a Special Reclamation Advisory Council (the Council) to monitor the progress

of the ABS in meeting future bond forfeiture reclamation obligations; and, removal of the limitation on funding for treating pollutional discharges at bond forfeiture sites.

Since 2002, the WVDEP has made significant progress in performing land reclamation and water treatment at many of the existing bond forfeited sites and expects to complete the remaining unreclaimed forfeited sites by September 2010.

From its inception, the Council has met regularly to evaluate the status of the Special Reclamation Fund (SRF) and to monitor the progress of land reclamation and water treatment at bond forfeiture sites. In 2007, the Council developed a report suggesting the Legislature appropriate money to assist in funding a trust fund for water treatment of "future" forfeited sites. However, no action relative to the SRF was taken by the 2007 Legislature.

During the 2008 evaluation year, the Council approved an actuarial study developed under contract for the SRF. The actuarial review revealed that the SRF balance is expected to decline and is threatened with solvency as early as June 2012. This conclusion is supported by another study that was performed by Marshall University's Center for Business and Economic Research (CBER), and completed in 2006. In this report, it was shown that without additional revenues, the Fund would decline to a negative balance by 2017.

The Council submitted its annual report to the West Virginia Legislature in January 2008, with recommendations from the Marshall University Study to provide additional funding needed to assure solvency, through creating and beginning to fund a trust fund to pay for water treatment, and/or through increasing the tax on clean coal mined.

During the 2008 Legislative session, the Legislature did act on the recommendations of the Council by increasing the coal tax for one year and providing for the establishment of a water trust fund. The amendments to the state regulatory program resulting from actions of the Legislature and resulting bill are subject to approval by OSM. OSM approved the increase in the tax as an interim final rule subject to public comments. The comment period ended July 16 and a final decision is pending. For more discussion on the proposed changes and program amendment approval process, refer to section VII.D. and for litigation relating to the SRF refer to section IV.B.5. of this report.

OSM remains encouraged by the efforts of the Council and the WVDEP as they work cooperatively to develop alternatives to address long term funding of the Special Reclamation Fund. OSM continues to closely monitor all actions and events related to this matter and believe the efforts of the Council with support of the WVDEP are prudent.

One Council member (the citizen representative) resigned for personal reasons in 2005. A replacement to fill that Council position had not been appointed by the end of the 2008 evaluation year.

VIII. ABANDONED MINE LAND RECLAMATION PROGRAM (AMLR)

A. General

The mission of the Abandoned Mine Land Reclamation Program is to reclaim abandoned mine sites by abating hazards, reducing or mitigating the adverse effects of past mining,

and restoring adversely affected lands and water to beneficial uses. The WVDEP's Office of Abandoned Mine Lands and Reclamation (AML&R) is successfully carrying out this mission. But, many more abandoned mine land (AML) problems remain that need to be addressed and ultimately abated.

1. General program Information

The WVDEP 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. The OSM originally approved this program component on March 26, 1993 and limited the amount of the "set-aside" to ten percent. Recent changes as a result of the reauthorization of the AML program allowed the State to increase the amount of funding to be set-aside for AMD treatment and abatement to thirty percent of its annual grant. To date, West Virginia has requested and been granted $16,408,619 of the $35,185,425 available for set-aside program abatement work. Additional discussion of the AMD treatment and abatement effort can be found in Section VIII.B.1.

The WVDEP AML&R again had noteworthy personnel changes in their program staff this year. The emergency program typically utilizes an engineer in the northern part of the state to design and manage emergency projects for the northern half of the state, and the Emergency Program Manager serves as the engineer for the southern part of the state. In 2008, the newly hired emergency engineer for the northern part of the state handled the emergency engineering for the entire state and served as Acting Emergency Project Manager. The position for Emergency Project Manager has not been filled. A change in staff also occurred in the Design Branch with the hiring of a new Project Administrator, in the Construction Branch with the hiring of a new southern Construction Supervisor, and in the Administrative Branch, with a reorganization of that group. Loss of inspectors, realty specialists, and engineers also occurred this year, resulting in numerous vacancies.

2. Appalachian Clean Streams Program

No additional funding was provided to the state under the Appalachian Clean Streams Program in 2008; however, one project previously funded under this program is still under construction. From fiscal year 1997-2007, West Virginia has received $10,403,765.80 for Appalachian Clean Streams Initiative projects. The WVDEP AMLR has earmarked these funds for AMD remediation at several abandoned coal mine sites.

At the end of June 2008, AMLR had expended $8,740,911 of the total award amount and completed design and/or construction on many of the projects. Measures to improve water quality at the completed projects involved construction of wetlands, open limestone channels, successive alkalinity producing systems, and in-stream limestone sand treatment. Additionally, land reclamation accounted for a significant portion of water quality improvements as several of the sites involved regrading and revegetating exposed toxic refuse material. To date, reclamation and water treatment conducted at these sites has improved 33 stream miles associated with the Appalachian Clean Streams Program (ACSP) funded projects and 58.5 stream miles for the other projects.

The WVDEP AMLR monitors downstream water quality for each of the completed ACSP project sites. The WVDEP AMLR is continuing its efforts to measure the success of these projects. The collection of data over time will determine the overall success of the reclamation and water treatment efforts.

The WVDEP AMLR continues to be an important partner to West Virginia watershed organizations on AMD remediation projects. The WVDEP AMLR has used monies from its ACSP to help fund AMD projects in partnership with watershed organizations and other funding partners. ACSP has contributed a total of $2,656,364 for these projects.

3. Abandoned Mine Land Inventory System Update

Changes in the law as a result of the reauthorization of the AML program now require that OSM approve all new proposed projects prior to the state's inclusion in the Abandoned Mine Inventory System (AMLIS). During this evaluation year, CHFO has approved 70 out of 73 new Project Area Description forms submitted by WVDEP for inclusion into AMLIS. These approvals are for new problem areas, and do not include any changes to the existing problem areas already in AMLIS.

4. Changes to the AML Program as a Result of Reauthorization

On December 20, 2006, amendments to SMCRA were passed, extending the AML fee collection period until 2021, and ensuring that funding will be available to address AML problems for at least 15 more years. The "reauthorization" of SMCRA resulted in some programmatic changes to the program in 2008 as discussed in this section. The reauthorization provides a significant increase in funding for AML project work for several years, which has resulted in significant effort this year in the planning and design work needed for future AML work.

5. Reynoldsville Wallace Waterline Audit Findings

In FY 2006, the WVDEP issued a cost-reimbursement contract for the Short Line Public Service District (PSD) to construct the Reynoldsville Wallace Waterline. That project was completed and a final inspection was made March 29, 2007. Subsequently, the PSD provided water utility services to customers. An independent audit was conducted on the project. The audit found weak internal controls within the PSD, and the audit report stated that because one employee has authority over all aspects of cash, there might be intentional or unintentional misappropriations of funds without the knowledge of management. However, conversations with the PSD staff determined that two signatures, one of which must be the PSD Director, are required for all checks. Also, the bulk of expenditures for the PSD are significant purchases that are presented to and approved by the Board of Directors prior to purchase.

The audit did not report that such weak internal controls had any adverse affect on the contract between the WVDEP and the PSD for construction of the waterline. The internal control weaknesses pertained to the PSD's public service operations subsequent to construction of the waterline. Even the receipts and disbursements for those subsequent operations were not reported by the audit to be unallowable, undocumented, unreasonable, or unjustified.

Since the audit report contained no evidence of fraud, mismanagement, or abuse of funding under the waterline project contract with the WVDEP, there were no costs to disallow. Since the completion of that contract, there have been no other contracts or subgrants with Short Line PSD. Unless that PSD applies for a subgrant in the future, there are no actions the WVDEP can take to verify that the PSD has strengthened its internal controls. It was, therefore, recommended that the audit findings be considered resolved.

B. Noteworthy Accomplishments

1. National Environmental Policy Act Training

The WVDEP AMLR Planning Group and emergency engineers attended a National Environmental Policy Act (NEPA) workshop developed specifically for the WVDEP AMLR program. The workshop was developed in coordination with the U.S. Fish and Wildlife Service, WVDEP AMLR, CHFO, and OSM's National Technical Training Program The class was held in October 2007 in anticipation of an increased work load due to the reauthorization of the AML program, the large number of new staff in the planning and emergency groups, and the need for better communication and direction concerning NEPA requirements between all agencies. Prior to the training, the WVDEP did not utilize the Categorical Exclusion Determination for any situation, and consequently, Environmental Assessments were written for all projects, including emergency work. The workshop has resulted in the majority of emergency projects utilizing the Categorical Exclusion option and major improvements in the information provided in the environmental documents for all projects.

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 WVDEP has been active in addressing these problems. The Water Supply Systems Advisory Committee (WSSAC) consisting of representatives from numerous state agencies and commissions was created 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 reauthorization of the AML program was the elimination of the 30 percent limit for funding on water supply projects. As a result, the WVDEP has increased the number of proposed water supply projects. The WVDEP, with the advice from the WSSAC, has committed to providing 40 water supply projects with partial funding from the AML program. Authorization to proceed on three of those projects was provided this evaluation year, five water supply projects were completed, and construction was still ongoing on three water supply projects at the end of the evaluation year. The remaining proposed projects are in the planning and development stages. The large majority of these projects include other funding contributors.

3. Assistance to Watershed Groups

During the evaluation year, AMLR has continued to be a partner with several watershed organizations and other government agencies to assist in the abatement of acid mine drainage projects. The AMLR has partnered on several watershed cooperative agreement projects, both as a funding partner, and as a technical advisor. When requested, staff from the AMLR is providing engineering, contracting, and inspection services for watershed groups in cases where the agency is not a funding contributor.

4. Acid Mine Drainage Abatement Advisory Committee

During the evaluation year and in response to the increase in AML funding allowed to be set aside for AMD treatment and abatement projects, the WVDEP formed an advisory committee for recommendations on AMD project planning and implementation. An expanded discussion about the Advisory Committee and WVDEPs intensions concerning the increased funding for AMD treatment and remediation is provided in section VIII.D.6.

5. Construction Activities – Authorizations to Proceed

During EY 2008, the CHFO issued Authorizations to Proceed (ATP) for the following twelve non-emergency AML construction projects. This authorization allows the state to begin construction activities at the site.

Project Name	**Date Approved**
Borgman Refuse and Portals	7/19/2007
Ames Bat Gate Portal	7/26/2007
Price Hill Air Shaft and Buildings	10/15/2007
Robey Highwall Refuse and Drainage	10/16/2007
Whitman (Williams) Drainage	10/17/2007
Union Prong Fork Landslide & Portals	10/18/2007
Stoney River Refuse #1	11/2/2007
Meader (Kiser) Portal	11/28/2007
Rawl (Pigman) Portals	2/13/2008
Dille Widen Waterline Extension	10/15/2007
Peachtree Creek Waterline	10/17/2007
Upper Winifrede Waterline	2/25/2008

For comparison, sixteen projects were authorized in 2007, eighteen were authorized in 2006, and seventeen were authorized in 2005. One project was submitted during this evaluation year that has not received an authorization to proceed.

6. Emergency Program

During EY 2008, the WVDEP initiated 42 emergency projects with an approximate cost of $1,947,000. The majority of these projects (30) involved sudden subsidence events, but a large variety of project types were addressed by the emergency program. In addition to the subsidence projects, the emergency program dealt with four landslides, three refuse fires, three open portals, one blowout, and one drainage problem. Five of the 42 projects (the four landslides and one burning refuse pile) exceeded $100,000, and two of the subsidences and the blowout exceeding $50,000. For comparison, 17 emergency projects were conducted during EY 2007 and 36 in EY 2006.

7. AML Sites Reclaimed under Refuse Removal Rules.

During EY 2008, work was conducted on four refuse removal sites under CSR 38-2-3.14, and one AML enhancement project in accordance with the State's AML Plan. The AML enhancement project was successfully completed in November 2007. Two refuse removal projects were completed during the year, and two additional refuse removal projects are currently under construction.

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 Technical Information Processing System (TIPS) and the National Technical Training Program (NTTP). During EY 2008, the WVDEP sent 32 Abandoned Mine Land staff to NTTP courses and 21 Abandoned Mine Land staff to TIPS courses.

2. Site Specific Assistance

The WVDEP-AML requested technical assistance from OSM to study the occurrence of AMD seepage draining into Fifteenmile Fork, a tributary of Cabin Creek, Kanawha County. A pattern of elevated metals occurs downstream of the Abbott Hollow refuse area that stains and coats the Fifteenmile Fork streambed. Iron, manganese, and pH levels exceed in-stream 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. The study demonstrated that the Abbott Hollow AMD seepage and runoff has some post-SMCRA liabilities.

The use of Abbott Hollow as a refuse disposal area started approximately 50 years ago. Even before the effective date of SMCRA, the Fifteenmile Fork watershed had undergone extensive mining in conjunction with the placement of coal refuse in the adjacent Abbott Hollow refuse area. Activities associated with the placement and/or maintenance of pre- and post-SMCRA refuse materials over the years have caused and/or contributed to the degraded water quality of Fifteenmile Fork, downstream of the refuse area. There is no historical analytical data available (pre-permit data) that corroborates as to when the AMD seeps and impacts first occurred to Fifteenmile Fork prior to pre- and/or post-SMCRA mining activities. Some of the pre-SMCRA underground mines also contribute poor water quality discharges directly into Fifteenmile Fork. Mining from the No. 2 Gas, Powellton, and Eagle seams discharge into the adjacent Abbott Hollow refuse area. In some cases, the mines developed mine pools that provide mine water seepage to the Abbott Hollow refuse pile. Thus, these mines are believed to contribute to inflows into the refuse pile that has the geochemical character to produce the AMD seeps that have been emanating from the refuse area. Consequently, some pre-SMCRA underground mines contribute to the generation of AMD seepage that emanates from the refuse toe.

The OSM believes that both pre-and post-SMCRA placement of AMD acidic refuse materials in the Abbott Hollow refuse area caused and contribute to the generation of the AMD seeps. The OSM concludes that there are some post-SMCRA liabilities to the current permittee of the refuse area and that the remediation of the AMD seeps is not

eligible for AML remediation funding. However, work on some Abbott Hollow pre-SMCRA underground mines are eligible for AML funding in relation to their contribution of AMD.

3. Fish and Wildlife Coordination—Bat Culvert Stabilization Project

The bat culvert project has been completed at this time. The purpose of this project was to verify if bats will use culvert type openings with gates as opposed to an open portal or standard bat gate. The WVDEP would like to use these culvert style portal closures on portals with unstable openings. Unstable openings pose a threat to the public, to contractors, and to the environment. Culvert style bat gates would also provide additional support at the mine opening and protect critical habitat for bats in West Virginia.

At this time, five sites with multiple portals have had culverts installed. Pre- and Post-bat surveys have been completed for these sites. The culverts have shown favorable results and the U.S. Fish and Wildlife Service agrees that culvert style installations will work in situations where portals are determined to be unstable. Although sample size was small, bat population numbers remained stable after the installation of the culvert gates. With a secure and stable portal opening, all involved believe that the number of bats will remain constant or increase in these mines.

Culvert Style installations will now be available to use in situations where standard bat gate installation would pose a hazard to workers. An added benefit is the stability that these culverts provide to the mine opening. Portal openings are generally the most unstable area of the mine shaft due to weathering and other environmental factors. By stabilizing these openings with culverts, the WVDEP is helping to enhance critical bat habitat that would otherwise be lost in the very near future.

4. Reclamation Information Management System (RIMS)

In February 2006, OSM and AMLR signed a work plan and created a team to evaluate the State's existing Reclamation Information Management System (RIMS). RIMS was the primary database and management system for AMLR. The system had not been fully developed and those parts that had been developed did not meet the expectations of AMLR management and staff. The initial intent of the review was to evaluate the purpose, intent, and success of the system to date; the amount of assistance AMLR has received from the WVDEP's Information Technology Office (ITO) in developing RIMS; the cost for developing, implementing, and maintaining the system; and the evaluation of the products developed and proposed, along with other issues.

The team includes ITO staff and management; AMLR staff and management; and technical and programmatic staff from OSM, including staff from the Appalachian Regional Office. During the initial meeting in April 2006, the team agreed that RIMS is not functioning properly and that the focus of the team should be directed toward the development and/or reconstruction of a working system rather than spending a significant amount of time evaluating past problems. The ITO staff, with the assistance of AMLR and the team, was to proceed with RIMS development.

After several months of discussions and meetings, little was accomplished with system development and improvements. In the fall of 2006, it was determined that the existing development plan was not accomplishing its mission, and an alternative plan was needed. In June 2007, two computer programmers were contracted by ITO to develop

the information management system. The new system is called WebAML and is being developed. The team has had very limited involvement during the development in EY 2008.

5. State Plan Program Amendment

As discussed last year, OSM formally approved numerous changes in the State's AML Plan. The State Plan was approved in full and OSM's decision was published in the *Federal Register* on January 17, 2007 (72 FR 1931-1937).

On December 20, 2006, amendments to SMCRA were signed into law making significant changes in the Federal AML Program. The amendments extended OSM's authority to collect AML fees though September 30, 2021, and made the majority of the funding available to States and Tribes mandatory and without further appropriation by Congress.

To implement the 2006 Amendments, OSM published proposed rules in the *Federal Register* on June 20, 2008 (73 FR 35213-35267). The public comment period on the proposed rules closed on August 29, 2008. Once finalized, OSM will assist the State in making sure that its State AML Plan and statutory and regulatory requirements are consistent with the Federal revisions.

D. Results of Enhancement and Performance Reviews

1 Drawdown Analysis

OSM's Appalachian Regional Grants staff conducted Quarterly Drawdown Analyses during FY 2008. The drawdown analyses were conducted in accordance with the following requirements:

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

The WVDEP drawdown activities were found to comply with both of these requirements.

2. Regular AML Construction Program

During EY 2008, final designs were completed on 36 projects, utilizing a combination of in-house design efforts and consulting engineering companies. Construction contracts were awarded on 23 projects, and 6 additional projects have been bid and are waiting on the issuance of the contract to begin. Final inspections were conducted on 17 construction projects during the evaluation year. This compares to 18 completed designs, 12 projects with construction awards, and 20 completions in EY 2007.

A review of the Abandoned Mine Land Inventory System was conducted in July 2008 to determine the cumulative reclamation accomplishments in West Virginia. Those cumulative accomplishments were compared with the completions provided in the EY 2007 West Virginia Annual Evaluation Report. Based on that comparison, the WVDEP AMLR reclaimed the following hazards during the 2008 evaluation year:

- 62 dangerous Impoundments;
- 59 acres of Dangerous Piles and Embankments;
- 4.7 acres of Dangerous Slides;
- 15 hazardous Equipment units and Facilities;
- hazardous Water Bodies
- 24 portals;
- 4 units of Polluted Water for Agricultural and Industrial use;
- 2,828 units of Polluted Water: Human Consumption;
- acres of Subsidence;
- 2.3 acres of Surface Burning;
- 1 Priority 3 Equipment/Facilities
- 2.5 acres of Priority 3 Gob;
- 2,000 feet of Priority 3 Highwall

Significant accomplishments involved dewatering dangerous impoundments, stabilizing dangerous refuse piles, and sealing dangerous portals.

It should be noted that the AMLR reviewed the information in the AMLIS last fall and made corrections to errors found in the system. Reductions in numbers of completed sites or large reductions in the numbers of unfunded sites are partially due to corrections of previous errors.

3. Emergency Program

During EY 2008, the WVDEP AMLR investigated 265 complaints, resulting in the declaration of 42 emergency projects. The number of emergency declarations has increased significantly from last year, primarily due to a large number of pothole subsidences in the northern part of the state.

4. AML Project Inspections

OSM conducts periodic inspections/evaluations on a sample of all types of abandoned mine land 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 EY 2008/2009 Abandoned Mine Land Performance Agreement (Performance Agreement) established that at least ten percent of submitted projects, for both emergency and non-emergency work, would be conducted during the year.

Site visits and inspections were also conducted as outlined in the Performance Agreement on both emergency and non-emergency projects. No significant problems were observed on the site visits and project inspections. 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 sites during EY 2008 covered by an MOA.

5. Shannon Branch Subgrant

Shannon Branch Refuse Pile Project continues to be problematic. 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.

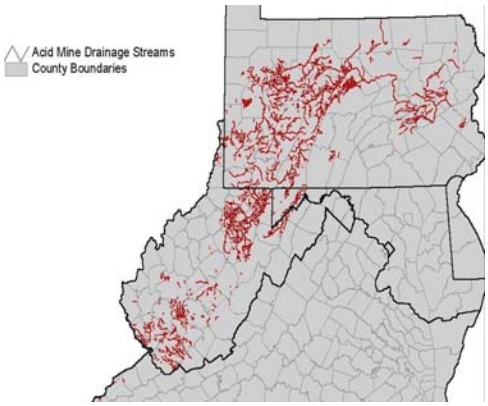
During most of EY 2008, refuse was reprocessed consistently, at an average rate of approximately 35,000 cubic yards of refuse excavation per month, and the grant period was extended to allow the reprocessing to continue. However, in mid February 2008 the company operating the landfill determined that no more refuse material was needed in the landfill, and ordered that the reprocessing company cease hauling refuse to the fill by May 2008. This resulted in additional litigation and a shutdown of reprocessing activities in late June 2008. OSM and the WVDEP are evaluating the options for continuance of the project.

6. Acid Mine Drainage Abatement Advisory Committee

The Tax Relief and Health Care Act of 2006, Public Law 109-432, was enacted on December 20, 2006, amending the Surface Mining Control and Reclamation Act by making significant changes in the AML program. Among other changes, the amended law provided for states with an approved AML reclamation program (like West Virginia) to set aside up to 30 percent of the total of their regular grant into an acid mine drainage abatement and treatment fund established under State law. This fund, including all interest, must be expended by the state for the abatement of the causes and the treatment of the effects of AMD in a comprehensive manner within qualified hydrologic units affected by coal mining practices.

West Virginia currently has over 500 streams covering more than 2,500 miles that are impaired due to AMD. The WVDEP supports the use of the AML fund to remediate AMD impacts to restore cold and warm water fisheries. The WVDEP is in the process of

developing a science-based decision support system as the core component of watershed restoration plans. The plans will function to optimize resources to achieve measurable improvements to water quality and ecological conditions and associated economic benefits. The WVDEP also seeks to leverage all other available resources to support the maximum beneficial outcome for each watershed restoration plan.



(Cheat River, Preston County)

The OSM Charleston Field Office, along with representatives from other state and federal agencies, academia, and non-profit organizations are working together with the WVDEP, in an advisory capacity, to provide assistance in planning and implementing AMD stream restoration. The group will also be assisting WVDEP with promoting stewardship and education, transferring the experience and lessons learned to communities, and enhancing intergovernmental communication and coordination for proposed stream restoration projects.

APPENDIX A: TABULAR SUMMARY

These tables present data pertinent to mining operations and State and Federal regulatory activities within West Virginia. They also summarize funding provided by OSM and West Virginia staffing. Unless otherwise specified, the reporting period for the data contained in all tables is the same as the evaluation. Additional data used by OSM in its evaluation of West Virginia's performance is available for review in the evaluation files maintained by the Charleston Field Office.

Table Explanations

Regulatory data is now being collected in a single nationwide database, resulting in the automation and standardization of the following tables. Some of the information requested in this year's tables had not been previously collected or reported by the States or requested by OSM. Consequently, this information was not available for this reporting period and is reflected as a "0" in the tables. The information will be collected during future evaluation periods and the data reported in the tables.

The following information is provided to further explain or provide additional insights on the tables and identify where unavailable information is shown as zero.

Table 1 Coal Production: This table shows coal produced for sale, transfer, or use based on information provided OSM by each coal company through the OSM-1 form. This information is being reported on an evaluation year basis, and it is not representative of other coal production data that is reported by the State and other Federal agencies. In prior years, coal data in Table 1 was reported on a calendar year basis, not on an evaluation year basis as done now.

Table 2 Inspectable Units: The "Abandoned" column includes all permits that have been revoked or forfeited (Bond Forfeiture Sites) and are not yet fully reclaimed or are treating water.

Table 3 State Permitting Activity: Refer to last paragraph under the explanation for Table 5.

Table 4 Off-Site Impacts: As discussed in Table 2, Abandoned/Bond Forfeiture Sites include all sites that have been revoked or forfeited and are not yet reclaimed.

The numbers in the first column of figures (3rd column from the left) represent the total number of permits with off-site impacts for the specific type of resource affected. For example, there were a total of 60 off-site impacts on 59 permits from land stability on non-forfeited sites.

The off site impacts reported on Bond Forfeiture Sites represents only those impacts that continue to exist this evaluation year.

Table 5 Annual State Mining and Reclamation Results: Under "Bonded Acreage Status" is a row for "Total number of acres bonded as of the end of this review period (June 30, 2008)". This total does not include acreage for Abandoned/Bond Forfeiture sites. In some situations, a bond forfeiture site may still have a penal bond uncollected but, under West Virginia's alternative bonding system, money for reclamation becomes immediately available from a bond pool (Special Reclamation Fund). The pool includes funds from several sources, including fees and previously forfeited penal bonds. To avoid double counting, forfeited permits are not counted as bonded, even if some portion of a penal bond is still in the collection process.

The information requested for "Disturbed Acres" is not available, and consequently a "0" has been entered for both the acres disturbed during the evaluation year, and cumulative acres disturbed. The requested information asks for the acres disturbed only during this evaluation year, and the cumulative acres of all permits disturbed

since the state obtained primacy. West Virginia's database can provide information on the current disturbed acreage, but cannot distinguish when the disturbance occurred, thus cannot provide the information requested.

The total number of new acres bonded during this evaluation year includes eight permits representing 385 acres that were repermitted during this evaluation year. Table 3 does not provide for acreage related to repermitting. Therefore, this acreage is not equal to the total number of acres on Table 5.

Table 6 State Bond Forfeiture Activity: As discussed above, Abandoned/Bond Forfeiture Sites include all sites which have been revoked or forfeited, regardless of whether the penal bond has been collected.

Table 7 State Staffing: The information provided in the table only includes on-board staff employed at the end of the evaluation year, and it does not include vacancies. Eleven vacancies existed in the AML program and 13 vacancies existed in the Regulatory program at the end of the evaluation year.

Table 8 Funds Granted to State by OSM: This table lists Federal funding, including initial awards and any amendments thereto, that was provided WVDEP by OSM during the evaluation year.

Table 9 State Inspection Activity: The number of inspections completed on "Abandoned" sites in the table requires further clarification. Issues concerning site inspections on Bond Forfeiture Sites are discussed in Section VII. I of the narrative.

Table 10 State Enforcement Activity: No additional clarification required for this table.

Table 11 Lands Unsuitable: This table identifies the number of petitions submitted and acted upon by WVDEP during the evaluation year to declare or deny acreage within the State as unsuitable for mining.

TABLE 1

Coal Produced for Sale, Transfer, or Use
(Millions of Short Tons)

Period	Surface Mines	Underground Mines	Total
Coal production[A] for entire State:			
Calendar Year			
CY 2005	61.600	90.800	152.400
CY 2006	67.291	84.816	152.107
CY 2007	69.664	85.307	154.971

A Coal production as shown in this table is the gross tonnage and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported to OSM during the following quarter by each mining company 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 States or other sources due to varying methods of determining and reporting coal production.

Provide production information for the latest three full calendar years to include the last full calendar year for which data is available.

TABLE 2

Inspectable Units
As of June 30, 2008

Coal mines and related facilities	Number and Status of Permits								Nbr.of Insp. Units[A]	Permitted Acreage[B] (100's of acres)				
	Active or temporarily inactive		Inactive Phase II bond release		Abandoned		Totals			Federal Lands		State/Private Lands		All Lands
	IP	PP	IP	PP	IP	PP	IP	PP		IP	PP	IP	PP	Total
LANDS FOR WHICH THE STATE IS THE REGULATORY AUTHORITY														
Surface mines	0	546	3	46	11	192	14	784	798	0.0	0.0	13.6	2,589.6	2,603.2
Underground mines	0	689	0	42	0	84	0	815	815	0.0	0.1	0.0	309.6	309.7
Other facilities	0	479	1	18	2	42	3	539	542	0.0	0.0	0.1	460.6	460.7
Total	0	1,714	4	106	13	318	17	2,138	2,155	0.0	0.1	13.7	3,359.8	3,373.6

Total number of permits:			2,155
Average number of permits per inspectable unit (excluding exploration sites):			1.00
Average number of acres per inspectable unit (excluding exploration sites):			156.55
Number of exploration permits on State and private lands:	0	On Federal lands[C]:	0
Number of exploration notices on State and private lands:	182	On Federal lands[C]:	0

IP: Initial regulatory program sites
PP: Permanent regulatory program sites

[A] Inspectable units include multiple permits that have been grouped together as one unit for inspection frequency purposes by some State programs.

[B] When a single inspectable unit contains both Federal lands and State/Private lands, enter the permitted acreage for each land type in the appropriate category.

[C] Includes only exploration activities regulated by the State pursuant to a cooperative agreement with OSM or by OSM pursuant to a Federal lands program. Excludes exploration regulated by the Bureau of Land Management.

TABLE 3

State Permitting Activity
As of June 30, 2008

Type of Application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres [A]	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New Permits	42	24	10,691	32	21	429	18	13	561	92	58	11,681
Renewals	69	74		116	125		106	150		291	349	
Transfers, sales, and assignments of permit rights	61	54		89	73		62	39		212	166	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										0	0	
Exploration notices [B]											182	
Revisions (exclusive of incidential boundary revisions)		213			144			50			407	
Revisions (adding acreage but are not incidental boundary revisions)	12	23	1,992	0	1	5	0	1	86	12	25	2,083
Incidental boundary revisions	111	23	-155	157	146	502	58	56	403	326	225	750
Totals	295	411	12,528	394	510	936	244	309	1,050	933	1,412	14,514

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

[A] Includes only the number of acres of proposed surface disturbance.

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

TABLE 4

OFF-SITE IMPACTS (excluding bond forfeiture sites)

RESOURCES AFFECTED			People			Land			Water			Structures		
DEGREE OF IMPACT			Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE	Blasting	4	4	0	0	0	0	0	0	0	0	0	0	0
	Land Stability	59	4	0	0	51	0	0	5	0	0	0	0	0
	Hydrology	103	0	0	0	0	0	0	103	0	0	0	0	0
	Encroachment	26	3	0	1	19	0	0	4	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	192	11	0	1	70	0	0	112	0	0	0	0	0

Total number of inspectable units (excluding bond forfeiture sites): 1,824
Inspectable units free of off-site impacts: 1,707
Inspectable units with off-site impacts: 117

OFF-SITE IMPACTS ON BOND FORFEITURE SITES

RESOURCES AFFECTED			People			Land			Water			Structures		
DEGREE OF IMPACT			Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE	Blasting	0	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	0
	Hydrology	64	0	0	0	0	0	0	33	13	16	0	0	0
	Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other	1	0	0	0	1	0	0	0	0	0	0	0	0
	Total	65	0	0	0	1	0	0	33	13	16	0	0	0

Total number of inspectable units (only bond forfeiture sites): 331
Inspectable units free of off-site impacts: 266
Inspectable units with off-site impacts: 65

TABLE 5

Annual State Mining and Reclamation Results

Bond release phase	Applicable performance standard	During this Evaluation Year		
		Total acreage released	Acreage also released under Phase I	Acreage also released under Phase II
A	B	C	D	E
Phase I	- Approximate original contour restored - Topsoil or approved alternative replaced	5,363		
Phase II	- Surface stability - Establishment of vegetation	2,813	778	
Phase III	- Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored	7,676	778	1,327

Bonded Acreage [A]	Acres during this evaluation year
Total number of new acres bonded during this evaluation year	14,899
Number of acres bonded during this evaluation year that are considered remining, if available	0
Number of acres where bond was forfeited during this evaluation year	322

Bonded Acreage Status	Cumulative Acres
Total number of acres bonded as of the end of last review period (June 30, 2007) [B]	305,048
Total number of acres bonded as of the end of this review period (June 30, 2008) [B]	311,949
Sum of acres bonded that are between Phase I bond release and Phase II bond release as of June 30, 2008 [B]	4,584
Sum of acres bonded that are between Phase II bond release and Phase III bond release as of June 30, 2008 [B]	1,486

Disturbed Acreage	Acres
Number of Acres Disturbed during this evaluation year	0
Number of Acres Disturbed at the end of the evaluation year (cumulative)	0

[A] Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.

[B] Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).

Brief explanation of columns D & E. The States will enter the total acreage under each of the three phases (column C). The additional columns (D & E & E) will "break-out" the acreage among Phase II and/or Phase III. Bond release under Phase II can be a combination of Phase I and II acreage, and Phase III acreage can be a combination of Phase I, II, and III. See "Instructions for Completion of Specific Tables," Table 5 for example.

TABLE 6

State Bond Forfeiture Activity
(Permanent Program Permits)

Bond Forfeiture Reclamation Activity by SRA	Number of Sites	Dollars	Acres
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2007 (end of previous evaluation year) [A]	352		25,466
Sites with bonds forfeited and collected during Evaluation Year 2008 current evaluation year)	11	$ 94,706	322
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2008 (current evaluation year)	8		385
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2008 (current evaluation year)	37		1,062
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2008 (end of current evaluation year)[A]	318		24,327
Sites with bonds forfeited but uncollected as of June 30, 2008 (end of current evaluation year)	0		0
Surety/Other Reclamation (In Lieu of Forfeiture)			
Sites being reclaimed by surety/other party as of June 30, 2007 (end of previous evauation year) [B]	0		0
Sites where surety/other party agreed to do reclamation during Evaluation Year 2008 (current evaluation year)	0		0
Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year 2008 (current evaluation year)	0		0
Sites with reclamation completed by surety/other party during Evaluation Year 2008 (current evaluation year) [C]	0		0
Sites being reclaimed by surety/other party as of June 30, 2008 (current evaluation year) [B]	0		0

[A] Includes data only for those forfeiture sites not fully reclaimed as of this date

[B] Includes all sites where surety or other party has agreed to complete reclamation and site is not fully reclaimed as of this date

[C] This number also is reported in Table 5 as Phase III bond release has been granted on these sites

TABLE 7

State Staffing
(Full-time equivalents at end of evaluation year)

Function	EY 2008
Regulatory Program	
Permit Review	47.50
Inspection	74.95
Other (administrative, fiscal, personnel, etc.)	134.15
Regulatory Program Total	256.60
AML Program Total	54.85
Total	311.45

TABLE 8

Funds Granted To West Virginia
BY OSM
(During the Current Evaluation Year)
(Actual Dollars, Rounded to the Nearest Dollar)

Type of Funding	Federal Funds Awarded During Current Evaluation Year	Federal Funding as a Percentage of Total Program Costs
Regulatory Funding		
Administration and Enforcement Grant	$ 11,791,029	50.00 %
Other Regulatory Funding, if applicable	$ 0	0.00 %
Subtotal	$ 11,791,029	
Small Operator Assistance Program	$ 0	100 %
Abandoned Mine Land Reclamation Funding [A]	$ 42,851,001	100 %
Totals	$ **54,642,030**	

[A] Includes funding for AML Grants, the Clean Streams Initiative and the Watershed Cooperative Agreement Program.

TABLE 9

State Inspection Activity
During Current Evaluation Year

Inspectable Unit Status	Number of Inspections Conducted	
	Complete	Partial
Active [A]	4,835	11,412
Inactive [A]	2,827	3,018
Abandoned [A]	430	1,879
Total	8,092	16,309
Exploration	457	245

[A] Use terms as defined by the approved State program.

West Virginia
EY 2008, ending June 30, 2008

TABLE 10

State Enforcement Activity

During Current Evaluation Year

Type of Enforcement Action	Number of Actions [A]	Number of Violations [A]
Notice of Violation	886	886
Failure-to-Abate Cessation Order	90	90
Imminent Harm Cessation Order	12	12

[A] Do not include those violations that were vacated.

West Virginia
EY 2008, ending June 30, 2008

TABLE 11

Lands Unsuitable Activity

During Current Evaluation Year

	Number	Acreage
Number Petitions Received	0	
Number Petitions Accepted	0	
Number Petitions Rejected	0	
Number Decisions Declaring Lands Unsuitable	0	0
Number Decisions Denying Lands Unsuitable	0	0