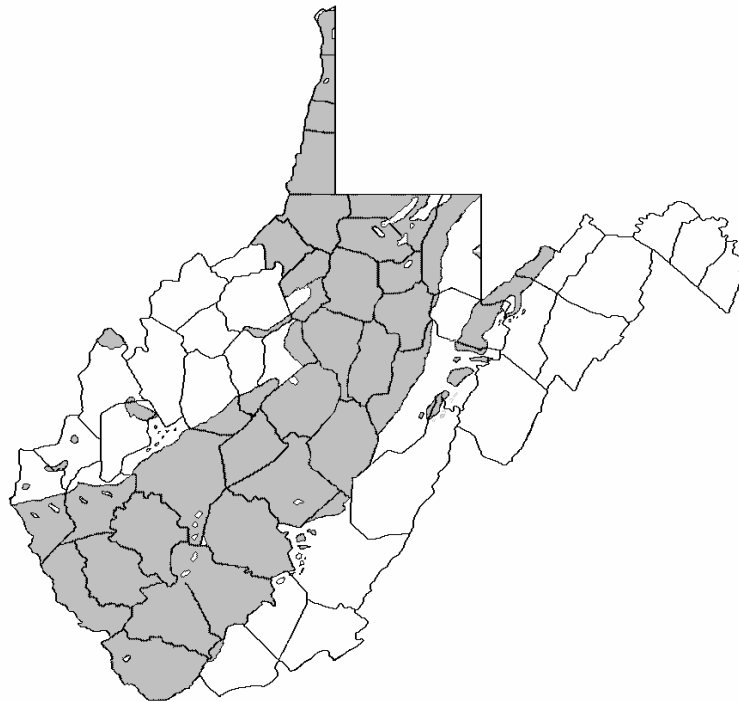


**2007
WEST VIRGINIA
ANNUAL EVALUATION REPORT**



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 VIRGINIA
FOR
EVALUATION YEAR 2007
JULY 1, 2006 TO JUNE 30, 2007**

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I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior (DOI). SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for 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, 2006, to June 30, 2007. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSM Charleston Field Office.

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
AR	Appalachian Region
ARRI	Appalachian Region 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
DMR 6	Division of Mining and Reclamation's Inspection Report Form
DOI	Department of Interior
EPA	Environmental Protection Agency
ERIS	Environmental Resources Information System
EY	Evaluation Year
FR	Federal Register
FRA	Forestry Reclamation Approach
GPS	Global Positioning System
HRC	Hydrologic Research Center
ITO	Information Technology Office
LCC	Lexington Coal Company
MCEDA	McDowell County Economic Development Authority
MCWA	Morris Creek Watershed Association
MOA	Memorandum of Agreement
MSHA	Mine Safety and Health Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	WVDEP's Non Point Source Program
NRCS	Natural Resources Conservation Service
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
PEP	Protection and Enhancement Plan
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
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
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 the Surface Mining Control and Reclamation Act (SMCRA) in 1977 resulted in many unreclaimed or under reclaimed areas within the State. Currently, there are 5,938 problem areas listed in the Abandoned Mine Land Inventory System (AMLIS) for West Virginia. One percent of them are funded, 51 percent are unfunded, and 48 percent have been completed through the State's AML Program.

West Virginia's demonstrated coal reserve base totals 32.9 billion tons, and its estimated recoverable reserves total 17.9 billion tons. The State's estimated recoverable coal reserves at producing mines totaled 1.7 billion tons in 2006. 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 2006, West Virginia produced 158.8 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). Coal was produced from 55 different seams. The Pittsburgh, Coalburg, Lower Kittanning, Stockton-Lewiston, Clarion and Eagle coal seams accounted for about 60 percent of the State's total coal production. During 2006, coal was produced in twenty-nine counties in West Virginia. The top six coal producing counties in 2006 by production were Boone, Logan, Kanawha, Marshall, Monongalia, and Mingo Counties. The

State's producing mines had an average coal recovery rate of 60 percent. The average price per ton of coal mined in West Virginia during 2005 increased to \$42.14. The average price per ton of coal nationwide increased to \$23.59 in 2005.

West Virginia leads the Nation in underground coal production. Underground mines produce approximately 58 percent of the State's total coal production. In 2006, there were 46 longwall mines operating in the country. Longwall mining occurs in twelve States. West Virginia has more longwall mining operations than any other State with 28 percent of the Nation's longwall mines. 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 2006. Although on a long-term uptrend, longwall coal production in the State was down more than 1 percent in 2006. Continuous mining activities still account for most of the State's underground coal production.

Contour, area, auger, mountaintop, and highwall mining operations are the most common methods of surface mining in the State. With advances in mining technology, surface mines are becoming larger and more complex. Forty-two percent of the coal produced in West Virginia is by surface mining methods. Surface coal production increased by 10 percent, while underground production decreased by 7 percent in 2006. Contour and auger mining operations are largely responsible for the increased surface coal production. Coal production from mountaintop mining operations declined slightly in 2006. Sixty-four percent of the State's surface coal production was produced by mountaintop mining operations in 2006. Approximately 68 percent of the coal production from mountaintop removal mining operations came from Boone, Logan, Webster, and Kanawha Counties. There are approximately 70 mountaintop mining operations in the State. Production from mountaintop mining operations decreased in 2006 to 42.7 million tons from a peak production of 52.6 million tons in 2000. Continued increases in production from contour, auger, and highwall mining operations have caused surface coal production in the State to increase in recent years.

West Virginia has 2,209 inspectable units. The average number of acres per inspectable unit is 148 acres. Surface mines average 314 acres per unit, whereas underground mines average 36 acres per unit. The number of new permits issued annually by the State has declined, but the complexity of the operations has increased. Approximately 77 percent of the State's permits are active and require monthly inspections by the West Virginia Department of Environmental Protection (WVDEP). Underground mines account for about 39 percent of the total inspectable units and surface mines account for 36 percent. The remaining 25 percent consists of other facilities, such as preparation plants, coal refuse piles, loading facilities, and haulroads.

Approximately 87 percent of the coal produced in West Virginia is used domestically, with 20 percent of that coal being consumed within the State. Most coal produced in West Virginia is used to generate electricity. Seventy-five percent of the State's domestic coal production is used by electric utilities in 25 States, including West Virginia. Coal produces 98 percent of the electricity generated in State. Approximately 17 percent of the State's domestic coal production is used by coke plants and the remaining 8 percent is for industrial, commercial, and residential use. Pennsylvania, North Carolina, Ohio, and Indiana import 48 percent of West Virginia's domestic coal production. Fifty-five 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 31 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 comprises 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 decreased by 2 percent in 2005, but the Nation's foreign coal exports increased by 9 percent, due to an increase in coal synfuel exports.

About 267 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. However, due to improved market conditions, the number of employees in the State's mining industry increased by 14 percent in 2006. During 2006, the State's coal mining industry directly employed 20,533 people with a payroll of more than \$1 billion. Total employment, including independent contractors, is about 29,419 employees. Sixty-six percent of the miners in the State work in underground mines. Coal mining operations in Boone, Mingo, Logan, Kanawha, and Raleigh Counties employ 54 percent of the miners in the State. Mountaintop mining operations employ 57 percent of the miners who work in the State's surface mines. Unions now only represent 32 percent of the miners in the State, and the remaining miners are non-union. West Virginia's miners produce an average of 3.6 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 economy.

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

Throughout the 2007 Evaluation Year, WVDEP and OSM officials met with representatives from the following citizen, environmental, and industry groups:

- o West Virginia Highlands Conservancy (WVHC),
- o West Virginia Coal Association (WVCA),
- o Ohio Valley Environmental Coalition (OVEC),
- o Contractor's Association of West Virginia,
- o River of Promise Steering Committee (Cheat River),
- o Deckers Creek Restoration Team (Deckers Ck. of the Monongahela River),
- o Mid-Atlantic Highlands Action Program,
- o Eastern Coal Region Roundtable,
- o Appalachian Coal Country Watershed Team,
- o West Virginia Rivers Coalition (WVRC),
- o River Network,
- o Tygart River Watershed Association,
- o Friends of the Cheat,

- North Fork Watershed Project Team,
- Potomac Headwaters RC&D,
- Guardians of the West Fork,
- West Virginia Watershed Network,
- Lower Paint Creek Watershed Association,
- Morris Creek Watershed Association (MCWA)
- 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 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, 2005, and ending on June 30, 2007. 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 Charleston Field Office (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 through the OSM budget. 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.

During EY 2007, OSM published notices requesting public comment on several rulemaking activities. Notices were sent to various State and Federal agencies along with public interest groups. OSM also published requests for public comment in the Federal Register. As part of OSM's outreach efforts, its web page in Washington, D.C. (www.osmre.gov) has a link to allow citizens to report suspected violations of mining and reclamation laws. There are also links to information packages that citizens can request about specific areas of the SMCRA. These include educational packets for schools and civic groups. The Appalachian Region (AR) has a website www.arcc.osmre.gov with a link to the Charleston Field Office web page at http://www.arcc.osmre.gov/about_cfo.asp.

The WVDEP has aided in the development of the West Virginia Watershed Network, Watershed Management Framework, and other initiatives to preserve, protect, and restore stream water quality. The WVDEP's Office of Environmental Advocate also offers a means for public participation. This office works on a variety of environmental issues within the state. They encourage participation on the regulatory process by individuals and groups. The approved Abandoned Mine Land Reclamation Plan also provides opportunities for public participation. These include public interaction during the processing of citizen complaints concerning AML problems. WVDEP also publishes newspaper notices seeking comment on each proposed construction project before requesting funding.

The WVDEP website, www.wvdep.org is regularly updated with a calendar of events, identifying public meetings and issues of public concern. The website has a link to allow citizens to sign up and be notified about WVDEP activities and permits. WVDEP provides weekly e-mails or weekly notification by U.S. mail announcing permits open for public comment and review. Draft permits for water and coal under the National Pollutant Discharge Elimination System (NPDES), air quality, solid waste, hazardous waste, voluntary remediation notices, and all SMCRA applications are included in the e-mails, and can be requested on a statewide level, or by county.

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

A. Accomplishments/Innovations

1. Indiana Bat Protocol: Guidelines for Protecting the Indiana Bat (*Myotis sodalis*) in West Virginia

This protocol was generated in cooperation with the U.S. Fish and Wildlife Service (USFWS), the WVDEP, and OSM. This guideline covers all application requirements, survey methods, and compliance options available to coal mining permittees. The document conforms to the principals of the 1999 Revised Indiana bat recovery plan while implementing new geographic-specific measures to ensure protection of the species in West Virginia. Permittees now have different options depending on the size, complexity, and other characteristics of the permit area. A flowchart has been developed to correctly identify options available for a given situation. Survey forms were also updated and are included in this protocol.

The protocol includes a detailed section titled Protection and Enhancement Plan (PEP). The PEP is used in areas where the applicant has elected to assume presence of Indiana bats or critical Indiana bat habitat. The PEP is a unique tool in that it is tailored to fit the circumstances of the given mine permit. This will allow flexibility for the permittee while maximizing conservation measures at a particular site. This plan will provide protection during mining and will ensure restoration and enhancement of Indiana bat roosting and foraging habitat on the mine site.

2. Cumulative Hydrologic Impact Assessment Quality Assurance/Quality Control Team

As discussed in Section VI.F., the Cumulative Hydrologic Impact Assessment (CHIA) Quality Assurance/Quality Control Team completed 12 permit evaluations and prepared a summary report outlining the issues identified during the reviews. The report is available on the WVDEP website at <http://www.wvdep.org/item.cfm?ssid=9&ss1id=948>.

Release of the summary report concluded the activities of the team.

3. Evaluation of GIS Capabilities to Identify Drainage Pattern Changes

WVDEP evaluated the capability of Geographical Information Systems technology to characterize changes in drainage patterns due to surface mining activity. The study compared a variety of elevation data sources representing pre and postmining conditions for several test sites. As a control, the study also included sites where no mining had occurred. The study indicated that drainage pattern changes could be detected by remote sensing in certain circumstances, but not in all circumstances. The process requires interpretation of multiple data products, including elevation contours, hill shade images, flow accumulation grids and optimally, high resolution photography.

4. Workshops for Improved Agency Coordination

In November 2006, representatives from various agencies, including but not limited to WVDEP, OSM, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service (USFWS), WV State Historic Preservation Office, and WV Department of Natural Resources met to discuss the processes associated with WV coal mining projects and further refine and improve the application process. Coordination activities are ongoing to develop the appropriate flow of actions and documents to reduce redundancy and provide concurrent and coordinated review and processing of surface coal mining applications.

WVDEP hosted various workshops for representatives from the coal industry and consultants to discuss the mining permit application process. These coordination activities are continuing but recent litigation has delayed efforts in developing the appropriate flow of actions and documents necessary for the process.

5. Workshops for Indiana Bat Protocols and Endangered Species

On January 17, 2007, more than one hundred individuals attended an interagency workshop sponsored by the WVDEP Coal Permitting Program in cooperation with West Virginia Department of Natural Resources, OSM, and the USFWS. The purpose of the Workshop was to discuss the updated Indiana bat protocols and general endangered species concurrence procedures for coal permitting applicants. Representatives from the coal industry, consulting companies, government, and other interest groups attended.

6. Endangered Species Consultation Procedural Change

In August 2005, WVDEP began providing assistance to USFWS to help process the paperwork for mining permits concerning endangered species review. Continued cooperation between USFWS and WVDEP has led to changes in the procedural review for mining permits. On January 1, 2007, the WVDEP began processing endangered species consultations for the coal permitting program. See Section VI.H. for further information.

B. Issues

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

As discussed in Section VII.K, WVDEP and OSM officials have been working to update information regarding water treatment activities on active permits which has been outdated for several years. To facilitate this review, the State's NPDES database, which includes water treatment information from NPDES Permit Reissuance applications, was used. In addition, the State's inspection report form, DMR 6, was modified to indicate which active sites are treating water. However, based on the work done to date, it does not appear that the existing NPDES data will give complete information in all cases. OSM continues to work with the WVDEP to improve the inventory.

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

During the 2006 evaluation period, a WVDEP/OSM team conducted a file review of revoked permanent program permits where a third party had assumed reclamation responsibility. From the file reviews, the reviewers were not able to determine the adequacy of reclamation for 27 permits. During the 2007 evaluation period, a follow up review of the 27 permits was initiated to resolve any outstanding reclamation issues related to those permits and to evaluate the implementation of certain procedural recommendations from the study. The study was not completed by the end of this evaluation period, but is expected to be completed during the early part of the next evaluation period. Findings from this review will be summarized in the 2008 Evaluation Report. See Section VII.I of this report for more information on this topic.

3. Bond Forfeiture Site Inspections

As further discussed in Section VII.J, 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. Once a permit is revoked and the bond is forfeited in West Virginia, WVDEP primarily inspects bond forfeiture sites only as deemed necessary to assess reclamation costs or to monitor contractors in completing reclamation contracts, rather than in accordance with the frequency requirements. During this reporting period, some action was taken to correct this problem, but the State must demonstrate how it intends to conduct monthly inspections at bond forfeiture sites or reduce inspection frequency at those sites in accordance with CSR 38-2-20.1.a.6.

4. Downslope Spoil Placement

During the 2006 evaluation year, OSM and WVDEP completed a study to determine if the State had successfully implemented recommendations from an EY 1999 study regarding perimeter protection. The report found that the 1999 recommendations, which included a regulation and policy change regarding constructed outcrop barrier design and certification, did not appear to be fully implemented by the State. In an attempt to fulfill the recommendations of the EY 2006 evaluation, WVDEP conducted training for its inspection and enforcement staff in the prevention of downslope placement of material in steep slope areas. However, OSM oversight evaluations found one incident where OSM questioned the construction outcrop barrier certification. Because in some situations, downslope violations can be related to safety, this topic will be included in the 2008/2009 Regulatory Performance Agreement and evaluated further during that time period.

5. Underground Mine Expansion Hydrology Predictions:

As discussed in Section VII G, OSM and WVDEP jointly completed a study of underground mining where acid mine drainage (AMD) has developed. The review noted areas where AMD prediction could be improved and suggested that significant mine expansions should also cause revisions to the Cumulative Hydrologic Impact Assessment (CHIA). The WVDEP is taking actions to improve how AMD is addressed in the future. The WVDEP is working on its CHIA guidance and reviewing other recommendations of the CHIA Quality Assurance team as discussed in Section VI F. OSM also noted that the prediction of how water behaves in relation to postmining

underground mine pools is challenging and hosted a technical workshop for all states in the Appalachian Region in March 2007. OSM is also supporting continued investigation of mine pools as noted in Section VI C.

6. Water Supply Replacement

As noted in Section V.C, the WVDEP is requiring operators to replace water supplies in a timely fashion as required by its program. However, in the samples reviewed by the joint review team, several water supplies that were initially determined to be adequate later proved to be problematic. The report suggests that better information concerning alternative water supplies should be provided during the permitting process. The report identified other areas that require WVDEP's attention concerning escrow bonding when final water supply replacement will exceed 90 days, permit modifications once problems arise, pre-mining recharge capacity for surface mines, and the complaint investigation procedures.

7. Off Site Disturbance

During the evaluation period, OSM provided WVDEP technical assistance in the evaluation of a mining operation in Webster County. Heavy rainfall and severe erosion of a durable rock fill located at the ICG Birch River Mine caused pollution to the Birch River. As a result of the evaluation, OSM recommended that changes to the spoil disposal plan should be submitted and implemented in a timely manner when major changes occur in spoil volume. See Section VI.K for further discussion of this issue.

8. Litigations

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 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 only 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 U.S. Department of the Interior (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.

As further discussed in Section VII.D of this report, on March 17, 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 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 the aforementioned case and schedule further proceedings on Count 9 on the grounds that the recommendations of the Special Reclamation Advisory Council are not being followed with regard to the State's alternative bonding system. The case was assigned to Judge John Copenhaver on April 2, 2007.

On April 17, the DOI and the West Virginia Coal Association (WVCA) filed responses in opposition to WVHC's motion to reopen this case. The DOI claims that the motion must be denied because the WVHC has failed to allege any failure by OSM. Furthermore, any such claim must be brought under the citizen suit provisions of Section 520 of SMCRA.

On April 30, 2007, the WVHC filed a reply to the DOI and the WVCA's responses in opposition to its motion to reopen the case. The WVHC contends that the fact that the Advisory Council made a recommendation to the West Virginia Legislature to set up a \$175 million trust fund to cover future water treatment obligations and because the Legislature did not follow the recommendation and OSM has not acted to correct the situation is sufficient to grant the motion to reopen.

On June 7, 2007, Judge Copenhaver issued an order that a status conference be scheduled for August 22, 2007, to consider the WVHC's motion to reopen the case.

c. Notice of Intent to Sue for Violations at Bond Forfeiture Sites:

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.

The NOI identifies 40 bond forfeiture sites operated by WVDEP that allegedly violate water quality standards for pH, iron, manganese, and aluminum in violation of CSR 38-2-2.37. In addition, the NOI maintains that all point source discharges from bond forfeiture sites should have NPDES Permits.

d. Notices of Intent to Sue Regarding Selenium:

On March 2, 2007, the West Virginia Highlands Conservancy (WVHC) and the Ohio Valley Environmental Coalition (OVEC) filed a Notice of Intent to Sue (NOI) Hobet Mining 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.

The NOI alleges that Hobet Mining 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 WV1017225 and in violation of certain State regulations promulgated under SMCRA and conditions of Permit No. U-5007-98. According to the NOI, if Hobet Mining does not bring itself into full compliance with the CWA and SMCRA within 60 days, the WVHC and OVEC intend to file citizen suits under both the CWA and SMCRA.

On June 29, 2007, WVHC and OVEC filed another NOI with Hobet Mining concerning violations of effluent limitations for selenium at other Hobet Mining operations that include: 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.

As with the other NOI, if Hobet Mining does not comply with the CWA and SMCRA within 60 days, WVHC and OVEC plan to file a citizen suit seeking an injunction to compel Hobet Mining to comply with applicable statutes, regulations, and permits.

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 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 1,728 (94 percent) of the State's 1,844 currently bonded permits were off-site impact free.

During this evaluation period, the State conducted 20,360 inspections on non-forfeited permits and issued 1,275 enforcement actions. Of these enforcement actions, 180 off-site impacts were found on 116 permits. In comparison to last year's 178 impacts on 119 permits, the number of off-site impacts has generally stayed the same.

Most of the off-site impacts on non-forfeited permits (99.5 percent) were categorized as minor. Hydrology, which accounts for 65 percent of the off-site impacts, remains the most common type of impact. This category has not changed from the percentages reported last year. In addition, 23 percent of the off-site impacts relate to land stability, 2 percent relate to blasting, and the remaining 10 percent represents encroachment by mining companies. The figures representing resources affected, degree of impact, and type of impact can be found on 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, eight permits were forfeited (collected and uncollected) and added to the Bond Forfeiture Inventory. Of those, three permits were reported as having hydrology type off-site impacts. The OSR reported an additional four permits with hydrologic offsite impacts that were not included as part of the eight forfeitures. The additional four permits are associated with the Buffalo Coal Company Bankruptcy that involved multiple permits. The OSR received the permits to address any immediate environmental issues at the time Buffalo Coal Company abandoned the sites, even though the permit revocation and bond forfeiture process had not been completed. Consequently, some of these permits are included in the OSR Data Base, but are not yet shown as forfeited in the WVDEP's Environmental Resources Information System (ERIS).

Table 4 of this report reflects 57 permits with hydrology type off-site impacts for the review period. Fifty of the 57 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

About two percent of the State's total land area was under permit as of June 30, 2007. 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 83 Phase III bond releases during the evaluation period totaling 5,210 acres, as reported in Table 5. There were 62 Phase I and 87 Phase II bond releases during the year that totaled 5,095 and 11,710 acres, respectively.

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.

Table 5 reflects the reclamation results for the mining activities in West Virginia. The table, which has been standardized for use by all states, requests information on the number of acres disturbed during the evaluation year and the cumulative acres of disturbance since West Virginia obtained primacy. West Virginia's database is not set up to track the annual amount of disturbance and cannot obtain the information requested. Since this is the first time that OSM has attempted to collect the data on acres disturbed during the year, and the information is not available, a "0" was inserted in the table.

C. Customer Service – Water Supply Replacement

During this evaluation year, as part of customer service, a joint State and Federal team evaluated West Virginia's implementation of its water supply replacement requirements. The study evaluated six water supply loss or contamination complaints during the past six years that were determined by the State to be mining related and that had or would result in water supply replacement by the operator.

The team found that approximately 37 percent of the water supply loss and contamination complaints evaluated by the State are mining related. The study revealed that most wells that were impacted by mining had some pre-mining water quantity and quality data. In addition, the team found that water supplies adversely affected by mining in the State are being initially replaced by operators in a timely manner in accordance with the approved State program.

However, the replacement wells that were drilled by operators and initially determined to be adequate later proved problematic, partially due to what appears to be inadequate alternative water source information in the permits. Other issues that were identified that require the State's attention relate to escrow bonding, pre-mining recharge capacity, need for permit modification or revision when a currently used or significant surface or ground water source is impacted by mining, and complaint investigation procedures regarding water supply replacement.

VI. OSM ASSISTANCE – REGULATORY PROGRAM

A. Site Specific Technical Assistance

During the evaluation year, OSM provided technical assistance to the WVDEP regulatory program by helping the State prepare for a Surface Mine Board hearing involving subsidence at a residence and later providing expert testimony at the Hearing. In addition, OSM assisted in two site-specific investigations; one involving a landslide and the other involving flooding at a valley fill site. Assistance was also provided in the development of an Indiana Bat Protocol that provides guidance on addressing requirements related to the endangered bat. OSM staff also assembled acid mine drainage data obtained through the National Pollutant Discharge system for use by the WV mining program. All of the assistance projects have been completed

B. Coal Slurry Disposal Study

The West Virginia Legislature adopted Committee Substitute for Senate Concurrent Resolution 15 in 2007 that authorized the study of the effects of underground injection of coal slurry on human health and the environment. The purpose of this project is to compile hydrologic data and technical information to use as the basis for a determination of the potential impact to surface and ground water resources from coal slurry disposal. This project is a joint study between the West Virginia Department of Environmental Protection – Division of Mining and Reclamation in conjunction with the West Virginia Division of Health and Human Resources – Public Health. The WVDEP has requested technical assistance from OSM for this project.

The study is to be completed in two parts. The first part, a hydrogeological assessment of the characterization and migration of coal slurry, is estimated to be completed by December 2007. The second part, a toxicology and epidemiology study, is to be completed in 2008 by another entity.

The hydrogeological assessment will be conducted in 4 phases. Phase 1 involves the site selection process; Phase 2 involves review of permit documents (including SMCRA, Underground Injection Control, and NPDES permits), inspection reports, and water quality monitoring data; Phase 3 involves site visits and representative sampling from sample site locations; and Phase 4 involves the compilation and evaluation of the chemical constituents of the slurry, and the migration of these constituents 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. Three sites have been selected to sample the ground and surface water from injection monitoring sites, injection boreholes, and in-stream monitoring sites. In addition to the water monitoring sites, there are six sites that have been selected statewide in order to chemically characterize the slurry injectate. The first round of sampling will begin in mid-July 2007.

C. Underground Mine Hydrology/Mine Pool Research

Fairmont Mine Pool

Since the late 1990's, OSM has conducted monitoring of the water held in mine voids created by extensive underground mining in the Fairmont, West Virginia area. The water has a high iron concentration and reached a level where it nearly discharged into the Monongahela River in 1996. Since that time, Consolidation Coal Company has removed and treated water from the pool in order to maintain the water elevation at a level that will not discharge to the surface. During EY 2007, OSM continued quarterly monitoring of water levels at 12 locations in ten mines within the pool. In addition, automatic water level recordings are conducted at one-hour intervals at three sites. The distribution of monitoring points is providing water level data for each major mine and at different parts of the mine pool flow system. Water quality sampling at several of the monitoring sites continues to show that the quality of the water within the pool remains below discharge standards and still requires treatment. The data collected through the monitoring is provided to both WVDEP and Consolidation Coal Company.

Northern Mine Pool

The purpose of this project is to gather information regarding the flooding of vast underground mine pools in the Pittsburgh coal seam basin in the northern panhandle of West Virginia. A new monitoring borehole at the Millennium Center in Tridelfia was completed that penetrates the Valley Camp 3 mine and replaces the former monitoring well at the Cabella's shopping area. A datalogger was installed in this hole to monitor water levels with a barologger for barometric correction of the mine pool water level. All mine discharges into the Ohio River have been located by the City of Wheeling by GPS. The city has also identified 34 points where mine water discharges into the city sewers or the surface. The city has estimated flows and sampled for mine water chemistry characterization. These discharge locations have been correlated with discharges from nearby mines. Hydraulic head in the Millennium well indicates that it is likely discharging to city sewers or to middle Wheeling Creek. Water levels in the Glen Dale mine are fairly constant (variations less than 2 feet over the last 18 months) indicating that the mine may be discharging to adjacent down-gradient mine workings. The Alexander mine water levels continue to show that the mine is flooding, with the water level increasing 6 feet over the last 24 months. The West Virginia University (WVU) – Water Research Institute, Hydrology Research Center (HRC) has added a project link to their website (<http://hrc.nrcce.wvu/index.htm>) to promote the dissemination of water level data; access to this page requires a username and password provided by the HRC. A final project report is anticipated in July 2007.

D. Permitting Guidance

On February 3, 2005, OSM and WVDEP entered into a work plan providing for OSM assistance in the development of permitting guidance and training related to geology and subsidence. The resulting Geologic Handbook is now available on the WVDEP website at www.wvdep.org/item.cfm?ssid=9&ss1id=491. WVDEP will determine when it is necessary to request OSM technical assistance when developing any future permit guidance.

E. Productivity Measurement Technique – Pasture Plate Method

As reported last year, 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.

WVDEP had planned to submit the Pasture Plate Method to OSM as a program amendment at the end of the last reporting period. However, due to changes in Federal regulations as discussed in the August 30, 2006, *Federal Register*, 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 concerns regarding the newly issued memorandum. Both agencies are continuing to work together to resolve those concerns.

F. Cumulative Hydrologic Impact Assessments (CHIAs)

On January 21, 2000, the Ohio River Valley Environmental Coalition (OVEC), the Hominy Creek Preservation Association, and the Citizens Coal Council filed a civil suit against WVDEP in the U.S. District Court for the Southern District of West Virginia [Civil Action No. 3:00-0058, (S.D. W.Va.)]. As part of a settlement agreement in that case, a quality review panel was established to review cumulative hydrologic impact assessments of twelve West Virginia permits. An OSM technical representative from the Appalachian Region was assigned as a member of the panel.

The common concerns raised during the twelve reviews were included in a summary report prepared by WVDEP and released to the public on February 5, 2007. The report is titled *Cumulative Hydrologic Impact Assessment Quality Assurance \ Quality Control Panel "CHIA QA\QC" Final Report* and is available on the WVDEP web site at <http://www.wvdep.org/item.cfm?ssid=9&ss1id=948> .

Release of the summary report concludes the activities addressed by the settlement agreement.

G. 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 National Technical Training Program (NTTP) and the Technical Information Processing System (TIPS). During EY 2007, WVDEP sent 95 regulatory staff to NTTP courses and 44 regulatory staff to TIPS courses. In addition, OSM makes

online training courses available for various subjects through its TIPS training program. During EY 2007, WVDEP staff participated in 40 of these online courses.

H. U.S. Fish & Wildlife Service's Biological Opinion

The WVDEP's coal regulatory program requires the protection of threatened and endangered species and their habitats. The USFWS completed a Biological Opinion for OSM outlining the roles of each agency when dealing with threatened or endangered species. Interpretation of the 1996 Biological Opinion has progressed over the past two years and was fully implemented January 1, 2007.

The WVDEP was able to assist the USFWS in eliminating the backlog of consultation documents that had accumulated due to USFWS staffing vacancies and increased volume. The WVDEP has complied with all aspects of the Biological Opinion and has taken the primary role in consultation of endangered species in West Virginia as it relates to coal mining operations. Coordination with USFWS will continue in certain circumstances where expertise is necessary.

Indiana Bat Protocol: Guidelines for protecting the Indiana Bat (*Myotis sodalists*) in WV was developed in cooperation between the USFWS, the WVDEP, and the OSM. "Coal Mining in West Virginia: Guidelines for Protecting the Indiana Bat", was released on January 1, 2007. The guidelines cover all aspects related to mining and Indiana bats and provides information for permit holders for Protection and Enhancement Plans should the need arise.

I. Horizon Natural Resources Company 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 bankruptcy in U.S. history. In August 2004, the U.S. Bankruptcy Court in Kentucky approved the company's reorganization which included the formation of a new company, Lexington Coal Company (LCC). LCC was to work with the surety companies and complete the reclamation of those permits that were not sold. As reported last year, OSM 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.

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. There are 16 permits still requiring reclamation, and all of the permits are to be reclaimed by the end of 2008. Two of these sites may have water discharges that require treatment.

J. Remote Sensing

The purpose of this study is to evaluate reclamation activities such as vegetation success and land cover (percent) change over time at West Virginia surface mines using remote sensing technology. This is a joint study between OSM, WVDEP and WVDEP — Technical Applications & Geographic Information Systems (TAGIS).

There is a particular interest in the refinement and adoption of this technology as a cost effective aid for mine inspections to evaluate success of reclamation, and determine land cover (percent) change over time. It is believed that the current generation of commercial imaging satellites, such as QuickBird satellite imagery, and low altitude aerial color photography have sufficient resolution to identify vegetation activity, and to evaluate vegetation density on surface mines. Images could be expected to identify "unquestionably vegetated" areas from areas that would require further inspection. On large surface mines, this capability could be useful for focusing limited resources to a specific portion of a mine permit. This study will also address an interest by the WVDEP and the OSM to map vegetation, differentiate between softwood and hardwood trees, and classify the hardwood trees. The study areas for this project are located in southern West Virginia. The project has been divided into short-term (2007) and long-term objectives (2008-2009). The results of the analyses of the vegetation will be compared with the mine permits and reclamation plans to determine if the imagery is capable of identifying and extracting land cover change over time.

K. Off-Site Disturbance

In June 2006, run-off from a durable rock fill located on the ICG Birch River Mine in Webster County caused pollution of the Birch River. The WVDEP issued two imminent harm cessation orders as a result.

A joint OSM/WVDEP investigation team was formed and determined that the primary causes of the event were:

- precipitation on June 25 and 27, 2006;
- surface runoff from the durable rock fill face eroded the finely graded material resulting from the push down phase of reclamation; and
- failure of the company to reclaim the fill in a timely manner once it was clear that no additional spoil would be deposited in the fill area.

The OSM team members also concluded that there was insufficient sediment storage capacity in the sediment retention structures. The WVDEP team members disagreed with that conclusion.

The team recommended that WVDEP should strongly emphasize the importance of contemporaneous reclamation of durable rock fills, and when major changes in spoil volumes occur, changes to the spoil disposal plan should be submitted and implemented in a timely manner.

L. Reclamation of Inactive MSHA Class Impoundments

In April 2007, WVDEP, together with OSM and the other states in the Appalachian Region, participated in a two-day workshop to explore effective ways of getting inactive impoundments to the reclamation stage. The focus of the workshop was impoundments that have been inactive for extended periods of time.

States are required to expend a significant amount of resources tracking and inspecting these impoundments. Reclamation and subsequent bond release would not only relieve the states of the associated workload, but would also lessen the likelihood of unanticipated environmental and public health risks. On the other hand, operators may have legitimate business reasons for not wanting to reclaim impoundments. Construction sites for impoundments are limited in Appalachia, and an existing impoundment with further storage capacity may be a valuable asset in the future. With these conflicting objectives in mind, the workshop provided a forum for states to share experiences and techniques for obtaining reclamation in as timely a manner as possible.

VII. General Oversight Topic Evaluations – Regulatory Program

A. Oversight Inspections

On-the-Ground Inspections

During EY 2007, the Charleston Field Office conducted 174 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. An aerial review of selected sites was planned but not conducted. Our findings for these review activities follow. The following is a breakdown of the inspections by type.

Assistance	1
Citizen Complaint Referral	5
Citizen Complaint Follow-up	2
Document Review	2
Federal Inspection – TDN	1
Bond Release Review	25
Bond Release Review - AMD	8
Sample Inspection – Comprehensive	76
Sample Inspection – Partial	51
Other	2
Federal Follow-up	<u>1</u>
	174

A total of 174 on-the-ground inspections were conducted. One hundred eight violations of the State Program were observed on 47 of the 174 inspections. This shows that violations of the State Program were observed on 27.0 percent of the inspections.

Most of the identified state program violations were properly handled by the State. Forty-three of the violations had been previously cited, 50 were cited at the time of the inspection. Fifteen violations resulted in the issuance of Ten-Day Notices (TDN). State responses have been determined to be appropriate on fourteen of the TDN violations. The response to one TDN was determined to be inappropriate. A Federal inspection was conducted. The violation had been corrected.

Following is a breakdown of violations by type.

Administrative

Mining Within Valid Permit	2
Mining Within Bonded Area	1
Terms and Conditions of Permit	8
Liability Insurance	5
Administrative – Other	1

Hydrologic Balance

Drainage Control	15
Inspections and Certifications	12
Siltation Structures	1
Diversions	1
Effluent Limits	12
Ground Water Monitoring	3
Surface Water Monitoring	6
Impoundments	1
Hydrologic Balance – Other	3

Topsoil and Subsoil

Removal	1
Redistribution	1

Backfilling and Grading

Contemporaneous Reclamation	8
Highwall Elimination	1
Steep Slopes (including downslopes)	7
Backfilling and Grading – Other	3

Excess Spoil Disposal

Placement	1
Drainage Control	4
Inspections and Certifications	2

Coal Mine Waste (Refuse Piles and Impoundments)

Surface Stabilization	1
Placement	1

Use of Explosives

Distance Prohibitions	2
Warnings and Records	1
Control of Adverse Effects	1

<u>Subsidence Control Plan</u>	1
<u>Roads</u>	
Surfacing and Maintenance	2
Total	108

Bond Release

This review consisted of on-the-ground inspections of bond released sites. Our on-the-ground review consisted of sites which 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, if the site is listed on the AMD inventory. Site reviews included: 30 - Phase I, 15 - Phase II, and two sites for which Phase III bond release had been granted. OSM also conducted on-the-ground reviews of 26 sites which had requested Phase III releases but the releases had not yet been approved.

Overall, the sites inspected demonstrated satisfactory reclamation and shows 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.

B. Slurry Impoundment Study

In 2000, OSM and WVDEP began a technical review of the potential for breakthrough into active or abandoned underground mine workings at coal slurry impoundments. The first work plan was completed in 2005 and evaluations under a second work plan are progressing.

Under the current work plan, breakthrough potential is being evaluated at three impoundments recently permitted. During EY 2007, evaluations of all of the impoundments were initiated and reports are being prepared. Final reports are expected to be completed by the fall of 2007.

C. Fill Quality Control Reviews

The joint OSM/WVDEP Fill Quality Control Review Team met and reviewed fill forms and photos that had been submitted by WVDEP inspectors. Forms and photos were reviewed for 129 fills. Most of the potential violations observed in the photos had been cited by the State. OSM conducted inspections on five fills and found all of them to be in compliance. No imminent harm/danger conditions were observed in the photos.

D. Program Amendment Status/Program Maintenance

1. Statutory/Regulatory Amendments:

On April 17, 2006, WVDEP submitted an amendment to its permanent regulatory program (Administrative Record Number WV-1462). The amendment consists of Committee Substitute for House Bill 4135, which amends the State's Surface Mining Reclamation Regulations by adding a postmining land use of bio-oil cropland and criteria for approving bio-oil cropland as an alternative postmining land use for

mountaintop removal mining operations with variances from approximate original contour. Also submitted is Senate Bill 461, which amends W. Va. Code §22-3-24 relating to water rights and replacement. In its submittal of the amendment, the WVDEP stated that the codified timetable for water replacement is identical to the one contained in the agency's policy dated August 1995 regarding water rights and replacement that is referenced in the March 2, 2006, *Federal Register* (71 FR 10784-10785). Both bills were passed by the Legislature on March 11, 2006, and signed into law by the Governor on April 4, 2006.

The Governor also signed Senate Bill 774, on April 4, 2006, which amends language concerning definitions, offices, and officers within WVDEP. OSM determined that the amendments to Senate Bill 774 are non-substantive and do not require its approval. Therefore, the amendments to Senate Bill 774 can take effect as provided therein on June 9, 2006.

OSM announced receipt and a public comment period on the proposed statutory and regulatory revisions in the *Federal Register* on June 2, 2006 (71 FR 31996-31999). The public comment period closed on July 3, 2006.

On August 28, 2006, OSM announced in the *Federal Register* its approval of the amendment to W. Va. Code §22-3-24 regarding water rights and replacement and revisions to the State's regulations adding a postmining land use of bio-oil cropland at Subsection 7.2 and providing criteria for approving bio-oil cropland as a postmining land use for mountaintop removal mining operations at Subsection 7.8 (71 FR 50843-50849).

2. 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 U.S. District Court for the Southern District of West Virginia on September 30, 2005. The U.S. 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, but the U.S. Environmental Protection Agency requested and was provided an extension to comment on the

amendment through June 22, 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. This amendment was undergoing OSM review at the end of the reporting period.

3. Program Maintenance

Required Program Amendments:

West Virginia has no outstanding required program amendments.

With the approval of an amendment last year, the State resolved all of the outstanding required amendments on its permanent regulatory program.

30 CFR Part 732 Notifications:

As reported last year, 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). OSM will notify the State if and when these Part 732 issues will have to be resolved.

E. Liability Insurance

As mentioned last year, 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.

State regulations require that an applicant must provide liability insurance for each surface mining and reclamation operation and maintain such insurance throughout the life of the permit or any renewal thereof and the liability period necessary to complete all reclamation operations. The minimum amounts for each surface mining and reclamation operation are: \$300,000 for each occurrence and \$500,000 aggregate for bodily injury; and \$300,000 for each occurrence and \$500,000 aggregate for property damage, with no exclusions for blasting, landslides, or water loss.

During the reporting period, a review of a representative sample of insurance companies and underwriters found that some of those agencies and underwriters appeared not to be licensed by the West Virginia Insurance Commission. WVDEP is working with the West Virginia Insurance Commission to make sure that all entities that provide liability insurance coverage to operators in the State are properly licensed.

During the current review period, State and OSM officials also 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 companies to conduct surface mining reclamation operations in the State. Since only certificates describing the policies and not the actual policies themselves are on file with the State, it was necessary to get the information from the insurance companies. Unfortunately, only a few insurance companies responded to the request for information. 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. Blasting Complaints/Violation Process

During the reporting period, OSM decided to conduct an evaluation of the State's blasting damage claims procedures as part of OSM's informal review of the State's proposed blasting rules. An earlier oversight review had identified some concerns regarding the implementation of the program that merited further evaluation.

The Office of Explosives and Blasting (OEB) administers the State's blasting program. Three blasting damage claims were evaluated during the review period to determine if the State was processing claims in accordance with that part of its approved program.

The review disclosed that it took an average of 17.2 months from the time the complaints were filed until the claims were found to have merit and determinations were made that the structural damage was blasting related. Each inspector was not making a determination regarding the merit of the claim upon completing their investigation. In addition, the review noted that enforcement actions should have been written for some of the older cases. However, OEB was just being formed at that time and have now changed their practices.

While the review identified some problems with the State's implementation of its blasting damage claims procedures, OEB recommended some proposed actions, which if implemented, should effectively resolve them and result in a stronger and more effective blasting program. OEB agreed to streamline and/or reduce the time that it takes to process blasting claims in the future. In addition, OEB agreed that the State, not the claims administrator, should be making the final decision as to the existence of blasting damage. In future, OEB agreed that if the original enforcement action does not specifically include offsite blasting damage, another enforcement action will be issued by the State once a final determination is rendered and the merit of the claim is upheld.

As mentioned, this review was the result of an evaluation of proposed revisions to the State's blasting rules. Those proposed blasting revisions were not adopted by the Legislature during the past session due to other legislative impediments. OSM will continue to assist the State in improving its blasting rules and making sure that they are consistent with the Federal requirements.

G. AMD Prediction – Underground Mining and Expansions

During EY 2005, the OSM and WVDEP jointly developed a work plan to evaluate underground mining permits where acid mine drainage (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 Charleston Field Office, the OSM Appalachian Region, and WVDEP participated in the evaluation.

Nine permits were evaluated and a final report of the review 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 CHIAs should be required with significant underground mine expansions.

The WVDEP has taken or will take several actions to improve how AMD is addressed in the future. These include updating of the WVDEP CHIA Guidance and consideration of other recommendations of the CHIA Quality Assurance Committee comprised of representatives from OSM, the environmental and mining communities, and WVDEP.

H. Fill/Flood Oversight and Technical Assistance Plan

On December 2, 2002, OSM and WVDEP signed an agreement outlining actions to prevent flooding similar to that occurring in the community of Lyburn in the summer of 2002. The agreement addressed a broad range of actions including approval and implementation of revised regulations to address flooding and fill construction, establishment of work groups to evaluate some of the broader issues identified at the Lyburn site, and development of additional guidance and training.

At the conclusion of the last evaluation year, the only activity remaining under the agreement was the implementation of WVDEP action to address the findings of the 2006 review of inactive status approvals for permits with valley fills. WVDEP addressed these findings by incorporating the requirements of an inactive status policy developed earlier by WVDEP into a revised Inactive Status application form and inspectors checklist. The application and checklist were revised in February 2007 and are now available on the WVDEP website.

I. Bond Forfeiture – Special Reclamation of Sites with 3rd Party Liabilities

For more than six years, WVDEP and OSM have worked together to improve the accuracy of the inventory of revoked permanent program permits, especially those that continue to generate AMD discharges. During this effort, an issue was identified concerning instances where 3rd 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 3rd 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 is projected to be completed during the early part of the next evaluation year. Findings from the 2006 review also identified several procedural issues to be addressed by 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 3rd party agreements to ensure reclamation work is completed;
- Lack of routine inspections on 3rd party reclamation sites; and,
- The need to update files with current information on the status of the 3rd party reclamation efforts.

J. Bond Forfeiture Inspection Frequency

As discussed last year, 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, the State maintained that it completed 6,176 inspections of bond forfeited sites. Upon closer review, OSM determined that approximately 68 percent of those inspections were to conduct water sampling at bond forfeiture sites, 26 percent were to monitor contractors in completing bond forfeiture reclamation, and approximately 6 percent of them were considered to be annual or liability inspections. In August 2006, OSM notified WVDEP, that State records showed that the Office of Special Reclamation had not been inspecting all bond forfeiture sites on a monthly basis and entering the data into ERIS, nor had it implemented the requirements which allow for reduced inspection frequency at bond forfeiture sites as provided by the approved State program.

WVDEP maintains that the inspections conducted by the Office of Special Reclamation should be considered as compliance type inspections as normally conducted by the Division of Mining and Reclamation prior to forfeiture. OSM is not mandating which division completes the inspections or which forms are used, but has requested documentation of how the process works to effect the required inspections.

K. AMD Inventory of Active Permits

As previously reported, 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 provide for another AMD inventory update of active sites, but the plan was not fully implemented by the State.

Last year, 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 decided to evaluate the State's NPDES database, which includes information regarding raw water and the type of treatment for each NPDES outlet. This data is obtained from NPDES Permit Reissuance applications. Given that some data in the NPDES database was incomplete, additional review and comparison of this data with NPDES and Article 3 permit files was necessary. At the end of the reporting period, the file review had been completed and the NPDES database was updated. Flow data from NPDES discharge monitoring reports in ERIS was also verified and included in the NPDES database.

In addition, the DMR 6, State inspection report form, was modified to indicate which sites were treating water. However, given programming delays, the data was not uploaded into ERIS until well after the September 1, 2006, target date. This information is now being captured in ERIS, and quarterly comparison of data is ongoing. Preliminary data indicates that there are 368 active, bonded permits in the State with water treatment costs. Also, some permits only discharge when pumped, or have other specific issues that impact on the reliability of some of the available data. Because the data is still being analyzed and not all work plan elements have been completed, this review will continue into the next reporting period.

L. Blackwater Spills

In EY 2006, a team comprised of staff from WVDEP and OSM began to evaluate and report on the effectiveness of customer service provided by the WVDEP regarding blackwater spills. The current review is a follow-up to a 2004 blackwater spills review. As the team began its evaluation, they determined that it would be more beneficial to follow up on the findings of the previous report and to evaluate if there had been changes in the number, type or seriousness of blackwater spills. Consequently, during this review period, the team revised the 2006 work plan to focus on the comparison of the blackwater events, rather than the evaluation of the service provided by WVDEP. The purpose of the current study is to compare the number and seriousness of the spills which 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 which 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. The findings for this report will be submitted and finalized next year.

M. Staffing Analysis

The objective of this effort was to analyze and compare the WVDEP, Division of Mining and Reclamation workload to several other State or Federal mining programs to determine if their current staffing levels are consistent with those programs. While conducting the analysis, several areas of interest were observed that merit continued review, particularly, at the State level. These areas are:

- Some National Pollutant Discharge Elimination System (NPDES) efforts on coal mining permitting actions are eligible Office of Surface Mining (OSM), Administration & Enforcement (A&E) Grant costs. However, these expenditures could be submitted to the Environmental Protection Agency (EPA) for consideration as eligible grant costs. EPA funding for NPDES work would provide the State with another option if future OSM grant awards were less than anticipated for the mining program.
- The State's FY 2007 A&E Grant application proposes to reduce the permitting staff by one position, from 86 to 85. However, only 54 of these positions are designated as technical review while another 19 of the 54 positions are designated primarily as NPDES review. In addition, another 7 technical review positions are now vacant. Therefore, only 28 positions appear to be used specifically for SMCRA permitting work. This small permitting staff processes two to three times as many permitting actions with about half as many reviewers as several other states.
- In the distant past (late 1980s), OSM provided partial A&E Grant funding for five Special Reclamation Program staffers at an annual grant cost of roughly \$415,000 to support the bond forfeiture program. The most recent A&E Grant budget identifies twenty staffers with an annual grant cost of \$1,876,483 to support the Special Reclamation Program. For grant purposes, the State applies a predetermined percentage against bond forfeiture salaries to determine allowable costs. A recent survey suggests that some of this effort may be appropriate, but detailed time and attendance project-specific type records were not used to support the survey data. Further review of this practice may not support the amount of grant costs currently being claimed.

Table 7 provides information about State staffing, and the data is provided as "full-time equivalents at the end of the evaluation year". The State's AML Program currently has 55.2 full-time employees, and there are 253.8 full-time employees working in the regulatory program. There were three vacancies in the AML program and 25 vacancies in the regulatory program. If fully staffed, as authorized by OSM under the State grants, there would have been 58.2 AML and 278.8 regulatory workers during EY 2007.

N. Surface Water Runoff Analysis (SWROA) Effectiveness

State law requires that each permit contain a storm surface water runoff analysis. SWROAs were developed to provide information to predict the impact that a proposed mining operation will have on storm water runoff. In April 2007, a work plan was developed to evaluate the effectiveness of the SWROAs

in showing the changes in storm runoff caused by the proposed operation(s). The team proposed to sample five to ten approved permits in steep slope areas.

The SWROAs are being evaluated to determine if their designs could be constructed properly in conjunction with the mine plan. Examples of features being examined in the field are: flood storage, limiting disturbance, rock check dams, pit storage, increased flow path (lag time), and overflow (weir) storage in on-bench sediment basins. Also, each permit runoff monitoring plan is being reviewed and field verified. The field team is visiting and inspecting the designated SWROA off site evaluation points, and determining if the rainfall and stream flow monitoring have been properly and timely installed in accordance with the approved plan.

The team is meeting monthly and has conducted three evaluations. The study is expected to continue through the next evaluation year.

O. Sediment Control Structure Certification Study

In 2007, the OSM Appalachian Region chose to review the procedures for certification of sediment control structures as part of a consistency review in all states. The goal of the study is to ensure that OSM is consistent in the oversight or direct federal enforcement of certification requirements. This study should also help ensure that drainage control structures, construction of which often differs slightly from original designs, function as designed and certified, and are in accordance with approved program requirements. Mine Safety Health Administration (MSHA) and Natural Resource Conservation Service (NRCS) hazard class B and C facilities are excluded from the study.

The review is focusing on the certification requirements found in 30 CFR 780.25/784.16 for design and 30 CFR 816/817.49 for construction/maintenance certifications, and the approved State counterpart regulations.

Members of the study team organized regulations promulgated by each of the covered states into a matrix. They generated data collection sheets for sediment control structures, based on information in the matrix, for use by field personnel as they conducted inspections.

Collection of data for the study began early in May 2007, and will continue until the end of July 2007. Information will be compiled and presented to the Appalachian Region Management Council in a written report.

P. Reforestation Activities

OSM has been working closely with the WVDEP in the promotion of reforestation through improved reclamation techniques known as the "Forestry Reclamation Approach" (FRA). The FRA addresses material handling, ground cover, compaction, and species selection. During EY 2007, WVDEP issued 48 surface mine permits and 6 permit amendments which proposed forestland as the postmine land use. An additional 10 permits are to be returned to fish and wildlife habitat. Most of these permits contain reclamation plans that require the implementation of the FRA.

Over 2 million trees were planted in 2006 on over 3000 acres of West Virginia mine sites. It is not known how many acres were planted using FRA because some of the old permits did not specify that technique as a requirement. Through OSM oversight inspections, it is apparent that some permittees and operators, as well as some state inspectors, are not aware of the changes in regulations and permitting requirements with respect to the FRA. Improper selection of growth medium and over-tracking are still common practices on sites with commercial forestry and forestland as the postmining land use.

In EY 2007, WVDEP and OSM provided additional training for their inspectors, managers, and permit review staff regarding the requirements of properly implementing the FRA. The training involved a review of the rule changes and permitting requirements for permits with a postmining land use of commercial forestry and forestland, and included site visits to demonstrate proper FRA techniques.

The Special Reclamation Section budgeted \$500,000 for tree planting in 2006. A total of 301,950 trees were planted on 503 acres involving 57 forfeited permits for a total cost of \$374,133 in 2006.

Although there were no Abandoned Mine Land projects that included tree planting in 2006, the WVDEP AMLR section added tree planting and will require the FRA on a portion of one site (Kempton) which was bid during this evaluation year. This project should be under construction this summer, with tree planting to occur in the spring of 2008.

WVDEP and OSM presented the Appalachian Regional Reforestation Initiative (ARRI) 2006 Excellence in Reforestation Award to one operator and one consultant. Mid-Vol Coal Sales was presented the award for their successful implementation of the FRA on the Road Fork #2 Mine in McDowell County. Stephen Hill, a consultant with Marshall Miller & Associates, was presented the award for his outstanding effort in preparing over 20 FRA compliant forestland planting plans in 2006 alone.

International Coal Group's Birch River Operation in Webster County was the site of this year's Arbor Day event. WVDEP and OSM gave a presentation on ARRI and FRA, and assisted 60 local students and teachers in planting 400 Red Oak seedlings.

Catenary 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 evaluate whether tree survival and growth is better in brown or gray weathered sandstone, has been visited on many occasions to demonstrate the FRA.

Q. Special Reclamation Fund

On May 29, 2002, OSM fully approved the State's Alternate Bonding System (ABS) that included:

1. 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;
2. 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
3. removal of the limitation on funding for treating pollutional discharges at bond forfeiture sites.

During this evaluation year, the 14 cent tax was reduced by 7 cents as provided for in the original State legislation. The 7 cent reduction had been delayed by 18 months from the original expiration date, based on recommendations from the Council and approved by the Legislature.

The WVDEP has made significant progress in performing land reclamation and water treatment at many of the existing bond forfeited sites. However, due to a number of factors during the evaluation year, the WVDEP was compelled to adjust the reclamation schedule for the remaining unreclaimed forfeited sites, extending the completion timeline over the next 3 years, through 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 its December 2006 annual report, the Council appealed to the West Virginia Legislature to consider appropriating money to assist in funding a trust fund for water treatment of "future" forfeited sites. The Council stated in its report that; "while the current funding level appears to generate sufficient revenue to address future land reclamation projects and possibly water reclamation for Legacy sites for a limited time, initial cash flow projections showed that the revenue appeared to be insufficient to cover the ongoing costs of water reclamation for future bond forfeiture sites." The Council noted in the report that its recommendation was supported by an actuarial study of the Special Reclamation Fund (the Fund) completed in 2005 and another study performed by Marshall University's Center for Business and Economic Research (CBER), completed in 2006. In the latter report, it was shown that without additional revenues, the Fund will decline to a negative balance by 2017. The CBER study recommended that a trust fund for future water reclamation be created, and provided logic for that recommendation.

There was no action taken by the 2007 Legislature on the Council's recommendations. Consequently, at its April 2007 meeting, the Council drafted letters to the Speaker of the House and the President of the West Virginia Senate outlining their concerns on this issue and requested that an interim committee be appointed to evaluate the long term funding of the Special Reclamation Fund, particularly with reference to funding and creation of a Water Trust Fund. The Council submitted the letters in May 2007. The topic has been assigned to the Joint Standing Committee on Finance.

During the evaluation year, the Hay Group, Inc., an actuarial firm, was awarded a contract, to perform the second actuarial valuation of the Special Reclamation Fund. The 2002 legislation that increased the tax on coal and created the Advisory Council also included provisions for an actuarial review to be completed every two years. The initial actuarial study, completed in 2005, was also performed by the Hay Group, Inc. The first draft of the 2007 actuarial review is to be submitted to the Council around September and completed around December of 2007.

On March 28, 2007, the West Virginia Highlands Conservancy filed a motion with the U.S. District Court for the Southern District of West Virginia to reopen Count 9 of Civil Action No. 2:00-1062. Dating back to 2000, this case and specifically Count 9, challenged OSM's action to approve WVDEP's plan to increase the revenues for its Alternative Bonding System and to rely on the Advisory Council to recommend legislative adjustments in the bond fund. The Court denied the plaintiff's motion without prejudice to later renewal if the Advisory Council's recommendations were not being followed. In 2003, the Federal Court directed the case to be administratively closed and placed on the Court's inactive docket. The basis for the WVHC recent filing to reopen Count 9 concerns the lack of action by the 2007 Legislature in response to recommendations presented by the Council in its annual report. Both OSM and the West Virginia Coal Association have filed responses in opposition to WVHC's motion, and the WVHC has replied. A status conference is scheduled before Judge Copenhaver on August 22, 2007, to consider WVHC's motion to reopen the civil action. (for additional information on this filing and summaries of other litigation, see Section IV. B. 8. of this report.)

OSM is encouraged by the efforts of the Council and WVDEP as they work cooperatively to develop alternatives, for Legislative approval, 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 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 2007 evaluation year.

VIII. Abandoned Mine Land Reclamation Program

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. WVDEP's Office of Abandoned Mine Lands and Reclamation (AMLR) is successfully carrying out this mission, but, many more abandoned mine land (AML) problems remain that need to be addressed and ultimately abated.

On December 20, 2006, amendments to the Surface Mining Control and Reclamation Act (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 few immediate changes to the program in EY 2007, but has resulted in significant effort in planning for future AML work.

1. General program Information

The WVDEP conducts all of the AML reclamation in West Virginia. 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 up to 10 percent of its annual grant allocation to reclaim watersheds impacted by AMD. The OSM approved this program component on March 26, 1993. The first AMD project was funded on August 23, 1995. To date, West Virginia has requested and been granted \$12,558,278 of the \$31,335,084 available for set-aside program abatement work.

2. Appalachian Clean Streams Program

For Fiscal Years 1997 through 2007, West Virginia received \$10,403,766 from the Appalachian Clean Streams Program (ACSP) for acid mine drainage remediation projects at abandoned coal mine sites. AMLR has funded 16 projects with ACSF funding at a total cost of \$10,102,731.80. All the projects are completed, with the exception of one that is under construction. To date, reclamation and water treatment conducted at these sites has improved 33

stream miles associated with the ACSP funded projects and 58.5 stream miles for the other projects.

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 coal refuse materials. AMLR monitors downstream water quality for each of the completed ACSP project sites. 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.

AMLR continues to be an important partner to West Virginia watershed organizations on acid mine drainage remediation projects. 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.

OSM plans to discontinue ACSP funding to States during the 2008 fiscal year. It is believed that the States will have sufficient funds in the coming years for AMD remedial projects as a result of changes associated with the 2006 reauthorization of the Abandoned Mine Reclamation Fund. Specifically, the reauthorization now allows the States to set aside up to 30 percent of the states share of the AML funds for AMD treatment and abatement projects.

B. Noteworthy Accomplishments

1. AML Plan Amendment Approval

During the evaluation year, OSM approved an amendment dated June 16, 2006, to West Virginia's Abandoned Mine Land Reclamation (AMLR) Plan. As further discussed in Section VIII.C.5, the amendment consisted of numerous changes to the State's AMLR Plan. WVDEP and OSM officials worked closely in prior years to ensure that the proposed changes were consistent with the Federal requirements. As result, OSM approved the proposed amendment in full and announced its decision in the *Federal Register* on January 17, 2007 (72 FR 1931-1937). OSM found that the amendment improved the effectiveness of the State's AMLR Plan and made its decision effective immediately to ensure consistency between State and Federal AML requirements.

2. U.S. Army Corps of Engineer's Regional Permit for AML Reclamation

The U.S. Army Corps of Engineers (Corps) has the responsibility to regulate the discharge of dredged and fill material into all waters of the United States, including wetlands. Because much of the AML reclamation work involves work in and around streams, a permit is frequently required from the Corps in accordance with Section 404 of the Clean Water Act (404 permit). The State of West Virginia is covered by three district offices located in Baltimore Maryland, Pittsburgh Pennsylvania, and Huntington West Virginia.

In addition to AML work requiring 404 permits, many of the small watershed groups in the state were also required to obtain the permits when requesting Watershed Cooperative funds from OSM. Because many of the watershed groups consist solely of volunteers, the permitting process was very confusing and sometimes overlooked.

In order to simplify and expedite the 404 process, representatives from the various Corps district offices, WVDEP, including AMLR and the Division of Waste and Water Management, OSM, watershed groups, and West Virginia University initially met in September 2005 to evaluate the process. The concept of a regional permit for AML reclamation within the State of WV was developed. Throughout EY 2006 and 2007, the Huntington District of the Corps led the development of the permit, involving the additional coordination of the EPA, USFWS, and a variety of other state and federal agencies.

The 404 permit may be used by WVDEP, any non-profit 501(c)(3) watershed organizations, and the WV Division of Natural Resources for projects associated with AML or acid mine drainage (AMD), and can be used for the large majority of AML/AMD reclamation work, greatly simplifying the permit process. The proposed permit was released for public comment on March 16, 2007, comments have been received, and final approval is anticipated for the summer of 2007.

3. Waterline Sub-grant Implementation Process Approval

On March 3, 2006, WVDEP AMLR was advised by the Purchasing Division of the West Virginia Department of Administration (WVAdmin) that, according to their Policies and Procedures Handbook, state agencies shall use grants as the legal instrument reflecting a relationship between state government and a local government or other recipient whenever:

The principle purpose of the relationship is the transfer of money, property, services or anything of value to the local government or other recipient in order to accomplish a public purpose of support or stimulation authorized by the federal and/or state statute for the direct benefit or use of the state government.

WVAdmin directed AMLR to prepare a sub-grant implementation process for issuance of sub-grants for projects specified in Section 403 (B)(1) of SMCRA for the purpose of protection, repairing, replacement, constructing, or enhancing facilities relating to water supply adversely affected by coal mining practices.

In July 2006, the AMLR Administrative and Financial Group initiated a management plan with assistance from the OSM and WVDEP's administrative office, in the preparation of a sub-grant process within compliance to the Office of Management & Budget Circulars A-102, A-110, and A-133 and OSM Federal Assistance Manual. Importantly, the process had to be finalized and implemented no later than October 1, 2006.

AMLR finalized the process, established a Financial Monitoring Plan, Sub-Grant Work Plan, and Sub-Grant Presentation. The steps were completed well within the deadline to the satisfaction of this agency and OSM. Sub-grants were then issued to McDowell County Public Service District in the amount of \$1,926,000.

The processes and procedures established will be incorporated in the West Virginia State Reclamation Plan in accordance to 30CFR Part 700 section 882.

4. Construction Activities – Authorizations to Proceed

During EY 2007, WVDEP requested and received Authorizations to Proceed (ATP) for the following non-emergency AML construction projects. This authorization allows the state to begin construction activities at the site.

Project Name	Date Approved
Route 72 Waterline	8/1/2006
Ring Hollow (Meadows)	11/1/2006
Amherstdale/Route 16	11/20/2006
Ragland - Phase I	11/20/2006
Coalton Mine Drainage	12/20/2006
Glen Rogers Waterline	12/20/2006
Albert Highwall	1/26/2007
Kempton Refuse and AMD	3/3/2007
Summerlee AMD Phase I	3/6/2007
Widen A & D Maintenance	3/8/2007
Lambert Run (Site 5)	4/3/2007
Kingsville Waterline	4/10/2007
North Sands Branch	4/12/2007
Little Huff Creek	4/13/2007
Gilmer B Reclamation	5/21/2007
McAlpin Refuse Dump Phase II	6/2/2007
Twin Branch Portal Reclamation	6/5/2007
Whites Run Highwall and Portals	6/12/2007

In 2006, eighteen ATPs were approved, in 2005, seventeen were approved, and this year, seventeen were again approved, indicating the state is consistent with its requests.

5. Acid Mine Drainage Abatement and Treatment Projects

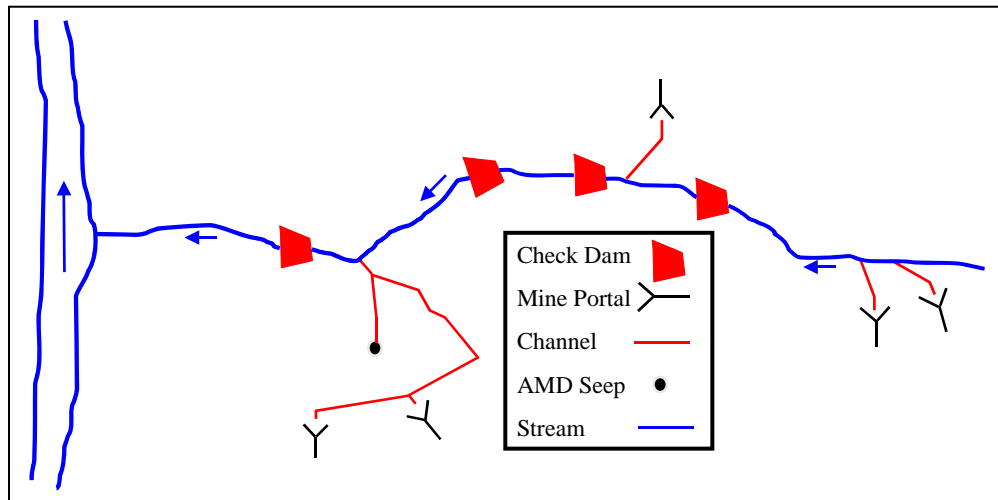
During EY 2007, AMLR has continued to be a partner with several watershed organizations and other government agencies to assist in the abatement of acid mine drainage projects. In addition to the projects conducted using their Clean Streams funding, AMLR has partnered on several watershed cooperative agreement projects, both as a funding partner, and as a technical advisor. When requested, staff from AMLR is providing engineering, contracting, and inspection services for watershed groups in cases where the agency is not a funding contributor. An example of a successful project is the Morris Creek/WVU Tech Phase I project, as discussed below:

Morris Creek AMD Project

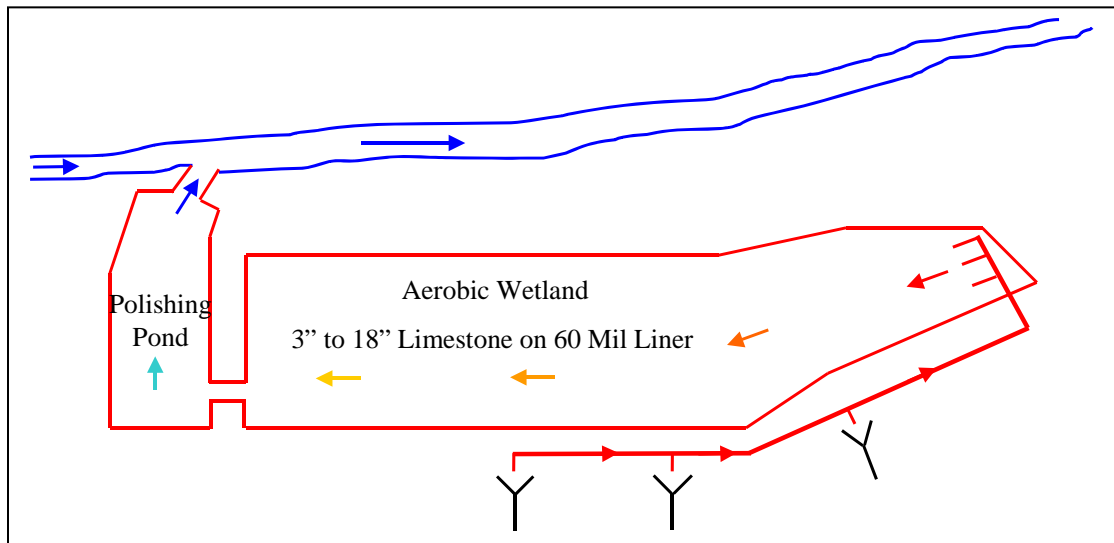
Morris Creek, a tributary of the Kanawha River Watershed, consisted of a 7.5-mile watershed impaired for pH and iron due to AMD. The Morris Creek Watershed Project was a cooperative effort between State, Federal, Private, and Local organizations. Primary project team members included: WV Office of Abandoned Mine Lands & Reclamation (AMLR), WV Division of Water and

Waste Management Nonpoint Source Program (NPS), OSM, Morris Creek Watershed Association (MCWA) and the Canaan Valley Institute (CVI). Other participants included WV Conservation Agency, Pardee Land Resources Inc and the City of Montgomery. AMLR contributed funding and was the primary agency responsible for real estate, design, construction, and monitoring. NPS provided funding and counsel and developed a watershed based plan. OSM supplied counsel and funding from the Watershed Cooperative Agreement Program. MCWA whose membership consists of local citizens, initiated the project and conducted monitoring along Morris Creek. CVI facilitated meetings and assisted MCWA in the review of the project design.

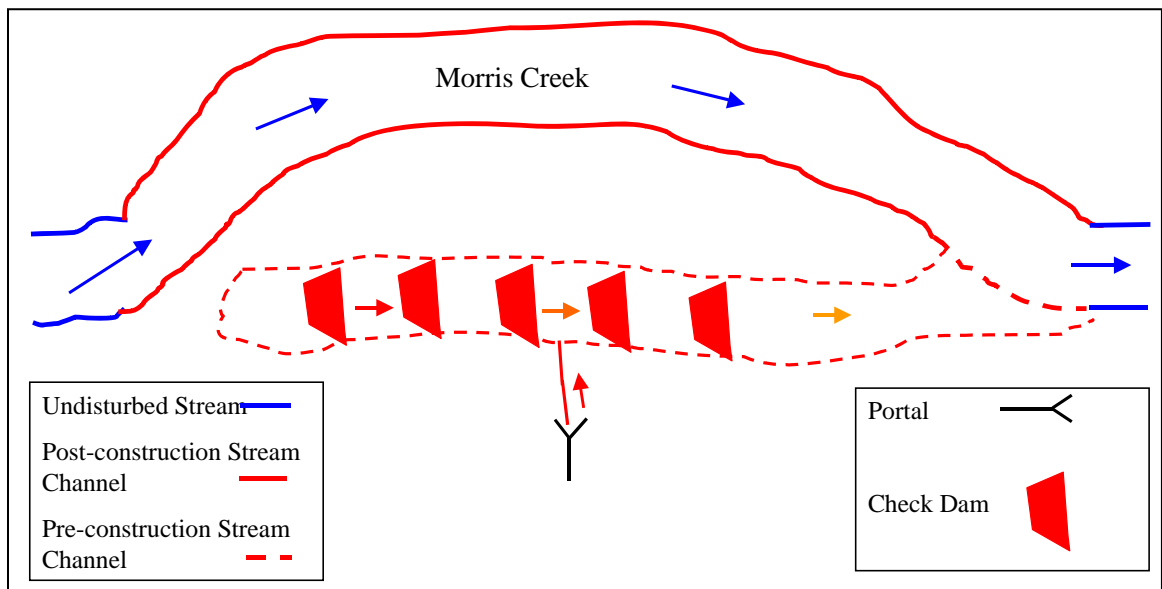
Passive treatment systems were constructed under an AMLR construction contract at Blacksnake Hollow, Lower Mainstem, Upper Mainstem, and Possum Hollow (shown below) along Morris Creek and its tributaries and these systems have vastly improved the water quality within the watershed. The project was completed in November 2006. Post construction water quality sampling has shown reductions in metals as follows: Aluminum (Al) 5900 lb reduction per year, Iron (Fe) 8007 lb reduction per year and Manganese (Mn) 4444 lb reduction per year.



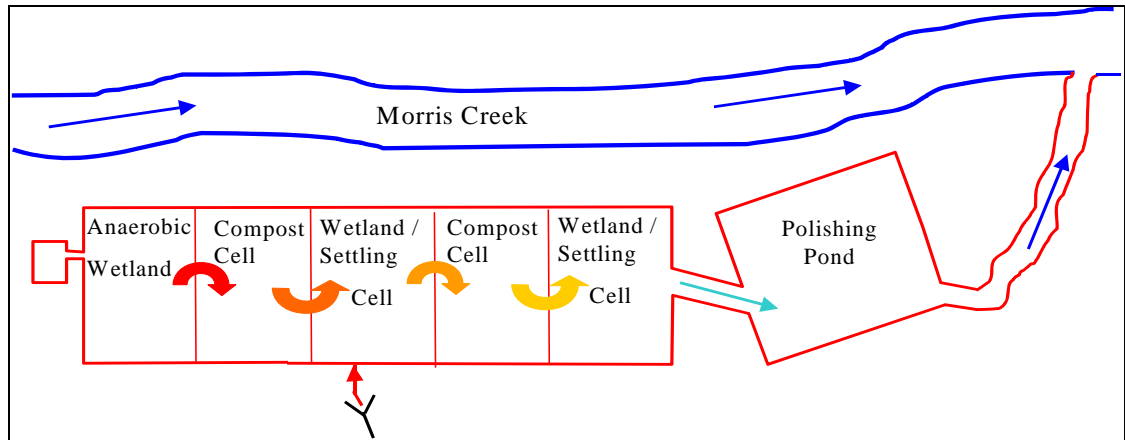
Blacksnake Hollow consisted of drainage channel with four check dams lined with 12" layer of AASHTO #57 limestone. Water quality changes: pH 4.4 to 6.8; Al increased by 3.65 lbs/yr; Fe reduced by 7.3 lbs/yr; Mn reduced by 7.66 lbs/yr.



Possum Hollow consisted of an Aerobic wetland 40' wide X 350' long, with 3" to 18" of limestone in a 60 mil liner and a polishing pond, 25' wide X 60' long. Water quality improvements: pH 3.5 to 6.7; Al reduced by 390.55 lbs/yr; Fe reduced by 47.45 lbs/yr; Mn reduced by 102.2 lbs/yr



Upper Mainstem consisted of drainage channel, 15' wide and 450' long with five check dams and lined with a 12" layer of AASHTO #57 limestone. Water quality improvements: pH 4.2 to 5.4; Al reduced by 31,006.75 lbs/yr; Fe reduced by 276,483.85 lbs/yr; Mn reduced by 31,119.9 lbs/yr.



Lower Mainstem consisted of an anaerobic wetland with five cells, 30' wide X 250' long, with 6" to 9" of limestone in a 60 mil liner and polishing pond, 30' wide X 100' long. Water quality improvements: pH from 4.0 to 6.3; Al reduced by 1759.3 lbs/yr; Fe reduced by 9249.1 lbs/yr; Mn reduced by 1098.65 lbs/yr.

Early in 2002, MCWA and the Stream Restoration Group from AMLR conducted a watershed based survey. Based on the findings, the MCWA contacted OSM, AMLR, and CVI for guidance in improving water quality within the watershed. Throughout 2003, several health and safety issues caused by the abandoned mines were identified and linked to the water quality problems. The NPS and OSM Watershed Cooperative Agreement Program became involved in 2004. Later that year, Eastern Coal Company, Pardee Land Resources, AMLR, City of Montgomery, and MCWA partnered to resolve landowner issues so that MCWA can acquire leases on the project sites. In 2005, a watershed based plan was completed, initial funding was obtained from the NPS and OSM grants, and later that year, the projects' plans were finalized. Construction began in early 2006 and the projects were completed in November 2006.

Funding sources included: Appalachian Clean Streams Initiative from the Abandoned Mine Lands Program in the WVDEP; OSM Watershed Cooperative Agreement Program funds from coal taxes granted by OSM to watershed associations; Clean Water Act Grant from EPA through the WVDEP NPS.

During a site visit in May of 2007 a local resident stated "I have lived along Morris Creek for more than 50 years and for the first time this spring I saw crayfish and minnows in the creek beside my house".

C. OSM Technical Assistance

1. Technical Training

OSM conducts 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 2007, WVDEP AMLR staff attended 24 NTTP courses and 8 TIPS courses.

2. Site Specific Assistance

During EY 2007, the OSM Appalachian Region and the Charleston Field Office provided site specific assistance to WVDEP to evaluate potential pre-law impacts and/or remedial measures at three sites. All of the assistance efforts involved evaluations begun during previous evaluation periods, including one that is still under evaluation. The two completed investigations related to potential gas problems with methane and cracks that appeared in a public road. The continuing investigation involves seepage at a combined pre-law/post-law refuse pile. Additionally, OSM is providing continuing technical assistance in the evaluation of the use of bat culverts at AML sites. Additional discussion of this assistance effort can be found in Section VIII.C.3.

3. Fish and Wildlife Coordination—Bat Culvert Stabilization Project

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

At this time, two sites with multiple portals have had culverts installed. There are two additional sites scheduled for construction during the summer of 2007. These sites have all been surveyed for bat abundance before culvert installation. After culvert installation, surveys will be conducted at these locations during the fall swarm in August and September of 2007.

A few changes have been made to the study plan for the remainder of the project. Due to low bat numbers at some of the study areas, other locations have been selected to achieve more reliable results. Additionally, the post culvert installation surveys have been modified from actual trapping of bats to recording activity using infrared night vision cameras. This method is less intrusive to the bats, avoids bias of trap shyness, and will allow researchers to note any predation at the smaller culvert style opening.

In 2006, one site was completed in time for a fall survey of an installed culvert. This site had three portals surveyed before and after installation. During the pre-culvert survey, an Indiana bat (*Myotis sodalis*) was captured at one of the portals. For this reason, WVDEP decided to install the proven standard bat gate at this portal. The other two portals were constructed with the new culvert design. Although bat numbers at this site (pre and post culvert installation) are very low, bat numbers at the culvert gates increased. Additionally, another Indiana bat was captured at the standard gate portal on this site. This is significant as all of these openings are connected and it appears that habitat in the mines has not changed due to culvert installation.

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 which 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 will be called WebAML. The team will stay involved to monitor the progress of the development. Development will continue through EY 2008.

D. Results of Enhancement and Performance Reviews

1 Drawdown Analysis

OSM's Appalachian Regional Grants staff conducted Quarterly Drawdown Analyses during FY 2007. 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 only with the actual, immediate cash requirement of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to the actual disbursements by the recipient organization. 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 2007, final designs were completed on 18 projects, utilizing a combination of in-house design efforts and consulting engineering companies. Construction contracts were awarded on 12 projects, and 11 additional projects have been bid and are waiting on the issuance of the contract to begin. Final inspections were conducted on 20 construction projects during the evaluation year. This compares to 17 completed designs, 26 projects with construction awards, and 18 completions in EY 2006.

Table 12 lists the cumulative AML reclamation accomplishments in West Virginia. A comparison of this table with the EY 2006 West Virginia Annual Evaluation Report shows that during EY 2007 West Virginia reclaimed:

- 0.5 miles of clogged streams;
- 1,800 lineal feet of dangerous highwalls;
- 61 dangerous impoundments;
- 44.3 acres of dangerous piles and embankments;
- 15.5 acres of dangerous slides;
- 14 hazardous equipment units and facilities;
- 0.8 acres of industrial and residential waste
- 85 portals;
- 17.8 units of polluted water for agricultural and industrial use;
- 1,114 units of polluted water: human consumption;
- 32 acres of subsidence;
- 1.1 acres of surface burning;
- 3x vertical openings;
- 0.5 acres of priority three benches;
- 8.5 priority three gob piles;
- 12.5 acres of priority haul road;
- 1 priority three mine opening;
- 0.5 acres of priority three slumps.

Significant accomplishments involved eliminating dangerous highwalls; sealing numerous mine entries; and stabilizing landslides, dangerous refuse piles and subsidence areas.

It should be noted that the AMLR reviewed the information in the Abandoned Mine Land Inventory System (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 2007, the WVDEP AMLR investigated 255 complaints, resulting in the declaration of 17 emergency projects. The number of emergency declarations has decreased significantly from last year, primarily due to a relatively dry year which resulted in only three new landslide emergency projects. Ten of the 17 emergency

projects involved subsidence, all of which were completed at a cost of \$50,000 or less. One mine entry was also sealed utilizing emergency procedures.

Due to the very dry weather, three burning refuse piles were extinguished as emergency projects. Two landslide projects, one of which involved the washout of a refuse pile, were started and completed during the evaluation year. One large slide is currently under design, but construction has not begun.

The reclamation project costs of the emergency program are also significantly less than previous years, and are approximately \$900,000.

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 2006/2007 Abandoned Mine Land Performance Agreement (Performance Agreement) established that 15 AML inspections would be conducted during the year, with the majority being conducted on emergency projects.

Due to changes in personnel in the emergency program, OSM reviewed more emergency complaints this year than in previous years to ensure that OSM and DEP interpreted the emergency guidelines in similar ways. 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. Only one site during EY 2007 was covered by a MOA. Approval to work on this site was authorized on June 1, 2007, but construction activities will not begin until EY 2008.

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.

McDowell County is one of the most economically-challenged counties in the State and one of the project goals for MCEDA was to provide unemployed and underemployed County residents (previous coal miners) with construction related jobs and training due to the reduced number of mining operations in the area.

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 EY 2007, refuse was reprocessed consistently, at an average rate of approximately 35,000 cubic yards of refuse excavation per month, but only a small amount of the pile has been reprocessed. Several issues remain to be resolved with the litigation, and the grant period is due to expire in EY 2008. WVDEP continues to provide weekly inspections of the site with frequent inspections by OSM.

6. Acid Mine Drainage Abatement and Treatment Fund / Hydrologic Unit Plans

AMD pollution from pre-law mines impacts over 500 of West Virginia streams and rivers and the cost to clean up these pollution sources is tremendous and continues to be a serious problem in the state.

In 1987, Congress amended Section 402 (g) (3) of the SMCRA to establish the first set-aside program. That change authorized States to deposit up to ten percent of the funds granted annually into a special trust fund, and those funds along with all interest earned on the funds were then eligible to be used by a State after August 3, 1992, to carry out the purposes of Title IV of SMCRA.

Section 402 (g) of the law was amended again in 1990, authorizing two set-aside programs. One program allowed for a special trust fund to be established under State law pursuant to which such amounts are expended by the State solely to achieve the priorities stated in Section 403 (a) after September 30, 1995. The law also established the acid mine drainage abatement and treatment fund. The State could set aside 10percent of its grant allocation to address acid mine drainage. The state was required, among other things and before expending such funds, to prepare an Acid Mine Drainage (AMD) Abatement and Treatment Plan within a qualified hydrologic unit for review and approval by the Secretary of the U.S. Department of the Interior.

In December 2006, the law was again amended and eliminated the special trust fund set up for addressing high priority projects after September 30, 1995. The amendment also modified the AMD abatement and treatment fund. The change in the law allows for a state to contribute up to 30 percent of its funding allocation (up from 10 percent), and eliminates the requirement for states to submit AMD Treatment Plans to OSM for approval.

Since 1992, WVDEP has been setting aside a percentage of its grant monies to the AMD Abatement and Treatment Fund (set-aside fund). Approximately \$31.3 million has accumulated in this fund over the years. Approximately \$12.5 million has been requested for projects leaving a balance of over \$18.7 million in the fund. WVDEP requested \$500,000 be set-aside into this fund from its 2007 AML Administration Grant.

Since the change in the law in December 2006, WVDEP is no longer required to submit the Hydrologic Unit Plan to OSM. WVDEP did submit and received approval for one Acid Mine Drainage Abatement and Treatment plan in EY 2007 prior to the change. A total of twenty-two AMD Abatement and Treatment Plans have been

approved in the state. Projects within qualified hydrologic units are located in the following watersheds: Middle Fork of the Tygart River, Black Water River, North Fork of the Blackwater River, Deckers Creek, Ten Mile Fork of Paint Creek of the Kanawha River, Morris Creek of the Kanawha River, Coons Run of the West Fork River, Wolf Creek of the New River, and several tributaries of the Cheat River. The WVDEP maintains treatment facilities in these watersheds, is in some phase of project construction, or has completed a project in the watershed that requires maintenance. Both the Black Water River drum station and the Middle Fork River projects require perpetual addition of alkaline materials to maintain a trout fishery for approximately 50 stream miles.

Under the current regulations, States are required to expend the funds 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. WVDEP is in the formative stages of developing a plan for addressing acid mine drainage and anticipates significant public input concerning its plan.

7. AML Mine Fire Inventories

The purpose of this project was to identify and delineate AML mine fire sites in West Virginia through remote sensing. The WVDEP reviewed existing thermal sensor data and determined that the resolution of the imagery was too coarse to identify mine fires. The collection of new data using thermal sensors was found to be cost prohibitive at this time. There is a possibility for future study in this area to identify a smaller, more cost effective test area to evaluate the efficiency of this technological application.

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. This means that coal data reported in prior Annual Reports is inconsistent with the data provided herein.

Table 2 Inspectable Units: The "Abandoned" column includes all permits that have been revoked or forfeited (Bond Forfeiture Sites).

Table 3 State Permitting Activity: No additional clarification required for this table.

Table 4 Off-Site Impacts: As discussed in Table 2, Abandoned/Bond Forfeiture Sites include all sites that have been revoked or forfeited.

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

The off site impacts reported on Bond Forfeiture Sites represents only those impacts that continue to exist this evaluation year. For this year, all of the off site impacts on Bond Forfeiture sites were hydrology-related, and 50 of the 57 existed in previous years but continue to have off-site impacts because reclamation has not been completed.

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, 2007)". 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.

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.

Another point of clarification is how the table reflects the recent Buffalo Coal Company bankruptcy that has resulted in the abandonment of many permits. Although abandoned, the WVDEP has not yet revoked all of the Buffalo permits, but it is in the forfeiture process. Consequently, the permits remain in the WVDEP's ERIS active permits database as well as in the Special Reclamation database of forfeited permits. To avoid double counting, CHFO is showing all Buffalo Coal Company permits as abandoned/forfeited.

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. Three vacancies existed in the AML program and 25 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. J 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 12 AML Reclamation Needs and Accomplishments Since Program Approval: The information provided in this table comes from OSM's Abandoned Mine Land Inventory System, which is regularly updated by WVDEP AMLR. Last fall, AMLR reviewed the information in AMLIS and revised/corrected errors found. The information provided in this year's report includes all changes and corrections as of June 30, 2007.

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:			
Evaluation Year			
EY 2005	57.757	92.672	150.429
EY 2006	65.320	88.249	153.569
EY 2007	67.288	84.903	152.191

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

TABLE 2

**Inspectable Units
As of June 30, 2007**

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	538	3	60	11	188	14	786	800	0.0	0.0	8.3	2,506.1	2,514.4
Underground mines	0	693	0	56	0	107	0	856	856	0.0	0.1	0.0	310.6	310.7
Other facilities	0	476	1	17	2	57	3	550	553	0.0	0.0	0.1	450.2	450.3
Total	0	1,707	4	133	13	352	17	2,192	2,209	0.0	0.1	8.4	3,266.9	3,275.4

Total number of permits:	2,209
Average number of permits per inspectable unit (excluding exploration sites):	1.00
Average number of acres per inspectable unit (excluding exploration sites):	148.28
Number of exploration permits on State and private lands:	0 On Federal lands ^C : 0
Number of exploration notices on State and private lands:	197 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, 2007**

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	30	31	7,679	25	22	491	10	10	281	65	63	8,451
Renewals	68	62		87	73		106	61		261	196	
Transfers, sales, and assignments of permit rights	0	129		0	91		0	69		0	289	
Small operator assistance	0	1		0	0		0	0		0	1	
Exploration permits										0	0	
Exploration notices^B											180	
Revisions (exclusive of incidental boundary revisions)		245			327			108			680	
Revisions (adding acreage but are not incidental boundary revisions)	21	14	1,350	1	1	11	1	1	61	23	16	1,422
Incidental boundary revisions	117	151	60	168	165	654	55	48	435	340	364	1,149
Totals	236	633	9,089	281	679	1,156	172	297	777	689	1,789	11,022

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		
		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT AND TOTAL NUMBER OF EACH TYPE	Blasting	3	0	0	0	3	0	0	0	0	0	0	0
	Land Stability	42	4	0	0	35	0	0	4	0	0	0	0
	Hydrology	116	0	0	0	4	0	0	113	1	0	0	0
	Encroachment	19	3	0	0	14	0	0	3	0	0	1	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0
	Total	180	7	0	0	56	0	0	120	1	0	1	0

Total number of inspectable units (excluding bond forfeiture sites): 1,844
 Inspectable units free of off-site impacts: 1,728
 Inspectable units with off-site impacts: 116

OFF-SITE IMPACTS ON BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
		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
	Land Stability	0	0	0	0	0	0	0	0	0	0	0	0
	Hydrology	57	0	0	0	0	0	0	34	8	15	0	0
	Encroachment	0	0	0	0	0	0	0	0	0	0	0	0
	Other	0	0	0	0	0	0	0	0	0	0	0	0
	Total	57	0	0	0	0	0	0	34	8	15	0	0

Total number of inspectable units (only bond forfeiture sites): 365
 Inspectable units free of off-site impacts: 308
 Inspectable units with off-site impacts: 57

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	5,095		
Phase II	- Surface stability - Establishment of vegetation	11,710	1,264	
Phase III	- Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored	5,210	1,203	3,001
Bonded Acreage^A			Acres during this evaluation year	
Total number of new acres bonded during this evaluation year			11,109	
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			5,762	
Bonded Acreage Status			Cumulative Acres	
Total number of acres bonded as of the end of last review period (June 30, 2006) ^B			304,911	
Total number of acres bonded as of the end of this review period (June 30, 2007) ^B			305,048	
Sum of acres bonded that are between Phase I bond release and Phase II bond release as of June 30, 2007 ^B			24,138	
Sum of acres bonded that are between Phase II bond release and Phase III bond release as of June 30, 2007 ^B			21,312	
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	
<p>^A Bonded acreage is considered to approximate and represent the number of acres disturbed by surface coal mining and reclamation operations.</p> <p>^B Bonded acres in this category are those that have not received a Phase III or other final bond release (State maintains jurisdiction).</p>				

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, 2006 (end of previous evaluation year) ^A	339		22,037
Sites with bonds forfeited and collected during Evaluation Year 2007 (current evaluation year)	8	\$ 936,252	926
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2007 (current evaluation year)	1		82
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2007 (current evaluation year)	34		1,791
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2007 (end of current evaluation year) ^A	352		25,466
Sites with bonds forfeited but uncollected as of June 30, 2007 (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, 2006 (end of previous evaluation year) ^B	4		402
Sites where surety/other party agreed to do reclamation during Evaluation Year 2007 (current evaluation year)	0		0
Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year 2007 (current evaluation year)	0		0
Sites with reclamation completed by surety/other party during Evaluation Year 2007 (current evaluation year) ^C	0		0
Sites being reclaimed by surety/other party as of June 30, 2007 (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 2007
Regulatory Program	
Permit Review	44.30
Inspection	69.50
Other (administrative, fiscal, personnel, etc.)	140.00
Regulatory Program Total	253.80
AML Program Total	55.18
Total	308.98

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	\$ 11,199,595	50.00 %
Other Regulatory Funding, if applicable	\$ 0	0.00 %
Subtotal	\$ 11,199,595	
Small Operator Assistance Program	\$ 0	100 %
Abandoned Mine Land Reclamation Funding ^A	\$ 23,885,119	100 %
Totals	\$ 35,084,714	

^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	4,647	11,367
Inactive ^A	2,668	1,678
Abandoned ^A	0	305
Total	7,315	13,350
Exploration	428	223

^A Use terms as defined by the approved State program.

TABLE 10

**State Enforcement Activity
 During Current Evaluation Year**

Type of Enforcement Action	Number of Actions ^A	Number of Violations ^A
Notice of Violation	1,110	1,110
Failure-to-Abate Cessation Order	152	152
Imminent Harm Cessation Order	13	13

^A Do not include those violations that were vacated.

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

TABLE 12

EY 2007 ABANDONED MINE LAND RECLAMATION NEEDS AND ACCOMPLISHMENTS SINCE PROGRAM APPROVAL					
Problem Type	Units	Unfunded	Funded	Completed	Total
Priority 1 & 2 (Protection of public health, safety, and general welfare)					
Clogged Streams	Miles	41.0	0.0	55.2	96.2
Clogged Stream Lands	Acres	141.0	0.0	177.3	318.3
Dangerous Highwalls	Feet	1,427,816.0	600.0	258,705.0	1,687,121.0
Dangerous Impoundments	Count	1,369	16.0	742.0	2,127.0
Dangerous Piles & Embankments	Acres	1,291.9	134.0	5,818.5	7,244.4
Dangerous Slides	Acres	429.9	6.5	591.4	1,027.8
Gases: Hazardous/Explosive	Count	2.0	0.0	5.3	7.3
Hazardous Equip. & Facilities	Count	640.0	14.0	692.8	1,346.8
Hazardous Water Bodies	Count	15.0	1.0	12.0	28.0
Industrial/Residential Waste	Acres	12.2	0.0	38.1	50.3
Portals	Count	2,834.0	45.0	2,690.0	5,569.0
Polluted Water: Agri & Indus	Count	206.5	9.1	87.5	303.1
Polluted Water: Human Consumption	Count	5,843.0	5,177.0	12,215.0	23,235.0
Subsidence	Acres	798.78	0.1	438.5	1,237.3
Surface Burning	Acres	68.2	6.0	511.2	585.4
Underground Mine Fires	Acres	1,968.5	0.0	28.3	1,996.8
Vertical Openings	Count	140.0	0.0	159.3	299.3
Priority 3 (Environmental restoration)					
Benches	Acres	210.8	0.0	29.5	240.3
Ind/Res Waste	Acres	49.5	0.0	3.0	52.5
Equipment/facilities	Count	91.0	0.0	13.0	104.0
Gobs	Acres	1,672.6	0.0	529.5	2,202.1
Haulroads	Acres	112.0	0.0	12.5	124.5
Highwalls	Feet	3,649,219.0	1,000.0	77,768.0	3,727,987.0
Mine Openings	Count	56.0	0.0	10.0	66.0
Other		154.0	0.0	0.0	154.0
Pits	Acres	43.1	0.0	11.0	54.1
Slumps	Acres	20.8	0.0	0.5	21.3
Slurry	Acres	10.0	0.0	2.0	12.0
Spoil Areas	Acres	1,091.8	0.0	286.5	1,378.3
Water problems	Gal./min.	11,388.5	0.0	747.0	12,135.5
Note: All data in this table are taken from the Abandoned Mine Land Inventory System (AMLIS)					