### OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

### **Annual Evaluation Summary Report**

for the

Regulatory and Abandoned Mine Land Reclamation Programs

**Administered by the State** 

 $\mathbf{of}$ 

### **ALABAMA**

for

**Evaluation Year 2004** 

July 1, 2003 to June 30, 2004

#### **EXECUTIVE SUMMARY**

During the 2004 Evaluation Year (EY), the Office of Surface Mining (OSM), Birmingham Field Office (BFO), conducted oversight evaluations of the Alabama Surface Mining Commission (ASMC) and the Alabama Department of Industrial Relations (ADIR), the State coal mine regulatory and abandoned mine land (AML) program agencies, respectively. The oversight studies focused on the success of these agencies in meeting the Surface Mining Control and Reclamation Act's goals for environmental protection and prompt, effective reclamation of land mined for coal. An evaluation (performance) plan for each agency was cooperatively developed by the BFO and the State to tailor the oversight activities to the unique conditions of each State program. The purpose for the oversight activities was to identify the need for and then provide financial, technical, and other program assistance to the State to strengthen its programs.

In support of OSM's national initiatives, studies were conducted in the areas of reclamation success, customer service, and offsite impacts.

- The BFO's review of seven bond release actions demonstrated that ASMC continues to follow all program requirements for releasing bonds.
- The BFO's customer service review concentrated on ASMC's compliance with Applicant/Violator System (AVS) responsibilities. Overall, ASMC is performing timely and accurate verification and entry of ownership and control (O&C) information into the AVS database in accordance with the AVS memorandum of understanding. During the review, ASMC implemented changes to insure that failure-to-abate cessation order data was entered into the AVS in a timely manner. The BFO also recommended that ASMC implement coordination efforts to ensure that all permit sites have an on-the-ground inspection to verify the O&C information provided by the applicant.
- The offsite impact study indicated that 85 percent of Alabama's inspectable units were free from offsite impacts. A substantial increase in the number of offsite impacts occurred in EY 2004 compared to previous years. Fifty-nine offsite impacts were identified on 34 inspectable units. Approximately one-half of the 59 offsite impacts were attributed to four companies. In an effort to decrease the number of offsite impacts, ASMC is exploring actions that can be taken to encourage compliance with Alabama surface mining laws and regulations. The BFO concluded from this review that the State was discovering and citing violations involving offsite impacts as they occur.

General oversight topic reviews were conducted on both the State regulatory and AML programs.

• The BFO reviewed sediment pond removal techniques to verify that the removal corresponded with the approved sediment pond removal plan in the permit's reclamation plan. File and field reviews verified that the timing of sediment pond removal was in compliance with regulations. Inconsistencies between some approved pond removal plans and actual construction activities were identified. ASMC committed to ensure that ponds are removed according to the approved plans. Insufficient seeding and mulching of the pond area was also identified. ASMC agreed to require seeding and mulching of the pond areas unless site specific conditions prevent this reclamation activity.

- Unapproved modifications of sediment pond removal plans were observed. ASMC agreed that revisions must be reviewed and approved by the technical staff before the modifications are made in the field.
- Phase II of a multi-year review of ASMC's adherence to State regulations covering groundwater monitoring was conducted. This study concluded that ASMC responded to the BFO's EY 2003 groundwater study in requiring that all monitoring wells specified by the permit be in place, maintained, and monitored. ASMC had also taken immediate and appropriate action to require that permittees monitor for all required parameters as identified in the EY 2003 study. During this phase of the review, it was determined that, in the majority of permits, groundwater wells were installed in the correct location, were being maintained, and operated as required. ASMC agreed to fully discuss and document its analysis of the effects of mining on the hydrologic balance and the material damage evaluation in the permit file.
- To review the State's actions relative to reclamation being conducted in lieu of bond forfeiture, the BFO conducted a study to provide a follow-up to the bond forfeiture study conducted in EY 2000. With one exception, the surety or other contractor was found to have successfully completed regrading and revegetation as required by the consent agreement. However, the majority of the permits in the study did not meet all the performance standards applicable during the reclamation process. ASMC initiated the following actions: 1) field staff will routinely contact those responsible for directing and/or conducting reclamation to discuss their inspection findings and present their evaluation of completed work and work yet to be completed, and address time frames for completion of remaining work; and, 2) ASMC has required the sureties responsible for reclamation on 18 permits to provide detailed plans and timetables for completing the remaining reclamation activities.
- A study was conducted to determine compliance with revegetation timeliness and soil stabilization practices of active permit sites. The file reviews indicated that revegetation plans and schedules were included in all the permits reviewed. ASMC is monitoring and enforcing their regulations and policies for timeliness of revegetation.
- The BFO conducted a study that placed an emphasis on four performance standards in joint oversight inspections with ASMC: 1) the maintenance of temporary diversions; 2) the maintenance of sediment ponds; 3) regrading or stabilizing rills and gullies; and 4) the establishing and marking of 100-foot stream buffer zones. ASMC addressed various concerns with diversions through the enforcement process. All but one of the sediment structures reviewed for the maintenance of the structures met all of the requirements of the regulations. On permits requiring rill and gully regrading or stabilization, ASMC had issued enforcement action or required the operator to modify the reclamation schedule to achieve compliance with the appropriate regulations. On permits where 100-foot buffer zones were required, buffer zones were correctly flagged and protected.
- A follow-up study to EY 2002 recommendations regarding the administration, inspection, and enforcement of regulatory standards on sites covered by notices of intent was conducted. The study concluded that ASMC had responded to the BFO's recommendations concerning administrative and enforcement issues. ASMC had clarified their NOI form so that environmental practices are described as required. Appropriate enforcement actions had been taken on NOI's.

- The BFO conducted an on-the-ground review to document ADIR's success in reclaiming AML problems. This year, the BFO evaluated ADIR's project construction. Preconstruction, during-construction, and post-construction phases of the AML construction program were reviewed. All required documentation for all phases of construction was available. All projects were constructed according to design plans, and maintenance performed was successful in alleviating any post-reclamation concerns.
- A study was conducted to review ADIR's ranking and selection procedures for eligible AML reclamation sites. This study revealed that ADIR selects projects for reclamation funding according to the State Reclamation Plan. Once a project is selected for funding, ADIR follows the procedures required by the Plan including eligibility determinations, inventory preparations, feasibility determinations, National Environmental Policy Act determinations and planning, consultations, and public participation.
- A study to evaluate the accuracy and completeness of Alabama Abandoned Mine Land Inventory System (AMLIS) entries was conducted by the BFO. In the majority of cases, information entered into AMLIS was complete and accurate. ADIR has established procedures to ensure the accuracy of data entered into AMLIS and to certify the accuracy of AMLIS entries which meet the recommendations of the U.S. Department of the Interior's Inspector General.

In addition to national initiative reviews and topical studies, the BFO engaged in activities that provided assistance to ASMC or ADIR.

 ADIR requested technical assistance to determine which mitigation techniques had remediated acid mine drainage problems, which techniques could be improved, and assistance with development of a list of techniques that would be most useful to State remediation. This review was based on four completed Appalachian Clean Streams Program projects and one Watershed Cooperative Agreement Program project. MCRCC performed the review of this assistance request.

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#### LIST OF ACRONYMS USED IN THE REPORT

ADIR - Alabama Department of Industrial Relations

AML - Abandoned Mine Land

AMLIS - Abandoned Mine Land Inventory System

**AOC** - Approximate Original Contours

ASMC - Alabama Surface Mining Commission

AVS – Applicant/Violator System

BFO - Birmingham Field Office

BMP's - Best Management Practices

Board - Walker County Soil and Water Conservation District Board

DCNR - Department of Conservation and Natural Resources

EY - Evaluation Year

FTACO's - Failure-to-Abate Cessation Orders

MCRCC - Mid-Continent Regional Coordinating Center

MOU - Memorandum of Understanding

NEPA - National Environmental Policy Act

NHPA - National Historic Preservation Act

NOI's - Notices of Intent

NOV - Notice of Violation

NPDES - National Pollutant and Discharge Elimination System

**OSM** - Office of Surface Mining

O&C - Ownership and Control

PAD's - Problem Area Descriptions

Plan - Abandoned Mine Land Reclamation Plan

Rules - Rules of the Alabama Surface Mining Commission

SMCRA - Surface Mining Control and Reclamation Act

#### I. INTRODUCTION

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining (OSM) in the U.S. Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory and abandoned mine land programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Alabama Regulatory and Abandoned Mine Land (AML) Programs and the effectiveness of the Alabama programs in meeting the applicable purposes of SMCRA as specified in section 102. These programs are administered by the Alabama Surface Mining Commission (ASMC) and the Alabama Department of Industrial Relations (ADIR). This report covers the period of July 1, 2003, to June 30, 2004. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at OSM's Birmingham Field Office (BFO), 135 Gemini Circle, Suite 215, Homewood, AL 35209.

#### II. OVERVIEW OF THE ALABAMA COAL MINING INDUSTRY

The majority of Alabama's coal is ranked high-volatile A bituminous. Moderate amounts of low and medium-volatile A bituminous coal also exist. The coal is generally of good quality, and most beds have low percentages of sulfur and ash.

Alabama has four coalfields that are part of the great Appalachian coal basin - the Plateau field, the Warrior field, the Cahaba field, and the Coosa field. Alabama's total coal reserves have been estimated at 4.8 billion tons. A total of 3.1 billion tons is estimated as recoverable reserves (.73 billion ton is recoverable by underground mining, i.e., overburden of greater than 120 feet; and 2.4 billion tons are recoverable by present strip mining techniques, i.e., overburden less than 120 feet). A total of 9,700 square miles of the State is underlain by coal. Coal is the most abundant and important mineral resource in the Warrior, Cahaba, and Coosa fields. The great majority of coal mined today is in the Warrior field. The Plateau field, with a greater area than all the other coalfields combined, has attracted little commercial mining. The coal mined in Alabama is used principally for electric power generation. Other uses include methane gas recovery and coke production.

Lignite also occurs in the Coastal Plain of Alabama in irregularly-shaped deposits that may be discontinuous and highly variable in thickness. Deposits of lignite have been identified from Sumter and Choctaw Counties in the west to Barbour and Henry Counties in the east. Lignite has potential use as an industrial fuel, fuel for steam electric generating facilities, and for gasification. There is no current lignite mining in the State; however, some recent exploration of lignite deposits has occurred.

Coal is recovered by both surface and underground mining techniques. Surface mining in Alabama includes auger, contour, and area methods. Room and pillar and longwall

methods are used for underground mining. Prior to 1986, surface mining predominated; since that time, underground mines have accounted for the majority of the coal recovered. For calendar year 2003, 76.8 percent of the coal mined was by underground mining (tonnage recovered by underground mining – 15,547,582.59; tonnage recovered by surface mining – 4,693,956.30; see Table 1). Underground mining operations employed 2,514 people while surface mining operations employed 673 people as of March 31, 2004.

As of June 30, 2004, 41 permitted surface mines, 10 permitted underground mines, three preparation and loading facilities, and two coal fines recovery operations were actively producing coal in Alabama. Production reports show that bituminous coal was produced in 10 Alabama counties: Cullman, Fayette, Franklin, Jackson, Jefferson, Marion, Shelby, Tuscaloosa, Walker, and Winston. Approximately 80.4 percent of the mine sites are located in Jefferson, Tuscaloosa, and Walker Counties.

# III. OVERVIEW OF PUBLIC PARTICIPATION OPPORTUNITIES IN THE OVERSIGHT PROCESS AND THE STATE PROGRAMS

Opportunities for public participation occur at significant points in the Alabama regulatory program and involve the ability of the public:

- To initiate rulemaking;
- To initiate civil suits;
- To request that areas be designated as unsuitable for mining;
- To review permit and revision applications;
- To object to proposed bond releases; and,
- To request an inspection of a mine site.

Monthly meetings of the Alabama Surface Mining Commission are open to the public.

Opportunities for public participation in the Alabama AML Program occur at the time of:

- Project selection;
- Consultation under the National Environmental Policy Act (NEPA);
- Grant application review;
- Obtaining right of entry documents;
- Management and disposal of land acquired by the AML Program;
- Obtaining a stormwater drainage permit; and,
- Securing amendments to the State Reclamation Plan.

On May 15, 2003, letters were sent to 19 Federal and State agencies and environmental organizations to alert the public of the opportunity for involvement in the BFO's oversight process. In the letter, recipients were asked to provide the BFO with any questions, issues or concerns that could be addressed in oversight studies. No responses to these letters were received.

# IV. MAJOR ACCOMPLISHMENTS/ISSUES/INNOVATIONS IN THE ALABAMA PROGRAM

Alabama Regulatory Program

ASMC continued to successfully administer its regulatory program during Evaluation Year (EY) 2004 to achieve the goals identified in section 102 of SMCRA. The BFO conducted regulatory program studies and engaged in assistance activities to characterize the success of the State's program and to provide assistance in specific areas.

During the evaluation year, ASMC issued 10 new permits and eight permit renewals. Ninety-seven permit revisions and one incidental boundary revision were approved. Nine permit transfers were submitted, and seven approved. ASMC processed 21 notices of intent to explore. One application for Small Operator Assistance was received, and one was approved. A total of 2,762 inspections were conducted, including 2,480 complete inspections (including 189 inspections on exploration notices of intent to mine) and 282 partial inspections.

ASMC issued 157 Notices of Violation (NOV), representing 197 violations, and one Cessation Order, with a total of one violation (not including vacated violations).

ASMC negotiated an agreement with the Alabama Department of Conservation and Natural Resources (DCNR) and New Acton Coal Company for the preservation of the 35-acre Union Chapel Fossil Footprint Site. This agreement will allow Alabama DCNR to preserve and manage the site for continued fossil recovery and study.

ASMC continued working with surety companies to achieve the complete reclamation of permits under its "reclamation in lieu of bond forfeiture" program. Four permits, involving 547 acres, received final bond release as a result of successful reclamation during EY 2004. Final bond release was also granted on portions of three additional permits, adding 428 acres to those reclaimed under surety reclamation.

ASMC continued to expand its development and use of Geographic Information System databases.

The BFO collected information on ASMC's bonding activities to provide an overall general picture of how successfully reclamation is staying current with mining in the State. As of June 30, 2003, 46,588 acres were bonded in Alabama for the purpose of coal mining. During EY 2004 1,610 acres received a Phase I bond release; 1,251 acres received a Phase II bond release; 3,285 acres received a Phase III bond release; and, bonds were forfeited on 455 acres.

Alabama Abandoned Mine Land Program

ADIR successfully administered the AML Program during EY 2004 as outlined in the AML Reclamation Plan and policies and procedures established in the annual AML grant. The AML Program completed 21 projects (including 11 emergency projects) during the evaluation year. Pothole subsidence events were the predominant emergency project problem with nine of the 11 projects involving subsidence problems. Two emergency projects involved extremely dangerous vertical openings.

Reclamation achieved by non-emergency activities included 8100 linear feet of dangerous highwall, 2.5 acres of dangerous impoundment, five acres of spoil, three portals, and 39.5 acres of coal mine waste (gob). A total of 131.6 acres was affected by the reclamation. The data presented in Table 6 characterizes the status of AML reclamation in Alabama. The data is presented by problem type, showing reclaimed versus unreclaimed figures.

Two projects of note were reclaimed during this evaluation year. In 1997, ADIR engaged in its first project involving a no-cost AML contract associated with the incidental extraction of coal on an AML site, the Blue Creek Gob Pile project. As a result of the reclamation completed in June 2004, steep, unstable embankments located within 26.5 acres of abandoned coal mine refuse were eliminated and the refuse material stabilized, correcting sedimentation and acid mine drainage problems originating on the site. The contracted services saved the AML program approximately one million dollars.

The Peabody Washer Acid Mine Drainage Project, completed in October 2003, was funded through the Appalachian Clean Streams Program. The project area included a four-acre, severely eroded, coal mine refuse slope averaging 100 feet in height with unstable outer slopes. The unstable refuse flowed freely into two clogged sediment ponds, and from there drained into the Black Warrior River, forming a sandbar that poses a hazard to navigation and is detrimental to water quality. Drainage intermittently flowing through the gob material was analyzed by ADIR as having a pH of 3.48, no alkalinity, and acidity of 83 mg/l. Under the completed project, the eroded slope of the refuse pile has been graded, stabilized and plated with onsite soil material. Coal refuse material, clogging the sediment ponds, was removed and buried at the base of the refuse pile. Both ponds were retained and plated with onsite soil material; a third, smaller pond was plated with alkaline slag material. Alkaline leach beds were installed within Pond #1 and below Pond #2 to trap and treat the acid mine drainage produced by the site. Post-construction water quality sampling indicates that water quality is improving.

# V. <u>SUCCESS IN ACHIEVING THE PURPOSES OF SMCRA AS DETERMINED BY</u> MEASURING AND REPORTING END RESULTS

To further the concept of reporting end results, the findings from performance reviews and public participation evaluations are being collected for a national perspective in terms of the number and extent of observed offsite impacts, the number of acres that have been mined and reclaimed and which meet the bond release requirements for the various phases of reclamation, and the effectiveness of customer service provided by the State. Individual topic reports are available in the BFO that provide additional details on how the following evaluations and measurements were conducted.

#### A. Offsite Impacts:

OSM annually evaluates and reports on the effectiveness of ASMC's regulatory program in protecting the environment and the public from offsite impacts resulting from surface coal mining and reclamation operations. Offsite impact data is gathered nationwide in order to portray the on-the-ground success of State programs in preventing or minimizing offsite impacts.

An offsite impact is defined as anything resulting from coal mining that negatively affects resources (people, land, water, structures). The impact must also be regulated or controlled by an applicable State program, must be coal mine related, and must occur outside the area authorized by the permit for conducting mining and reclamation activities. For EY 2004, offsite impact data was collected for the period of July 1, 2003, through June 30, 2004, during the BFO's field inspections and file reviews of State inspection reports, NOV actions, and bond releases.

The field and file reviews were conducted to determine if the State properly recorded offsite impacts for the inspectable units reviewed by the BFO. BFO inspections of these units occurred throughout the evaluation year, beginning in July 2003, and ending in June 2004. Of the seven inspections performed for the reclamation success study, no offsite impacts were identified. Of the 73 complete inspections performed, six offsite impacts were identified. All of the six offsite impacts were classified as previously existing; ASMC had previously taken enforcement action to address the observed concerns. All of these offsite impacts had been identified and cited by the State. The examination of the State NOV database and associated hard-copy State NOV's identified an additional 53 offsite impacts not associated with the BFO studies.

Remediation and prevention were addressed for each of the six offsite impacts identified by the BFO. The following was noted:

Two of the six offsite impacts involved the operator's failure to properly monitor the condition of the sediment pond and the treatment of the discharge from the National Pollutant Discharge and Elimination System (NPDES) monitoring point. Operators should regularly monitor the condition of the sediment ponds to identify and prevent dam or discharge pipe failures. Water discharging from a sediment pond should be monitored and treated as required to avoid exceeding effluent limitations.

- One offsite impact, involving uncontrolled runoff due to the operator's failure to pass all surface drainage through a pond before leaving the permit, was remediated by ceasing to pump water from the underground mine and into Coal Creek. The operator was negligent in following ASMC regulations requiring all discharge to be routed into a sediment basin before discharging off the permit.
- There were three offsite impacts that involved bond forfeiture or surety reclamation. One permit with one offsite impact was being reclaimed by the surety company. Two permits with one offsite impact each were in the bond forfeiture process. One offsite impact could be remediated by reclaiming the gob pile adjacent to a pond. Prevention would be accomplished by not building ponds in areas that will receive untreated drainage from gob piles or having gob piles located in the immediate drainways to the ponds. The remaining two offsite impacts involved uncontrolled runoff. These offsite impacts could be remediated and prevented by re-establishing drainage areas and maintaining diversions and ponds.

A total of 59 offsite impacts, with 59 effects on resources involving people, land and water, were identified on 34 of the 225 inspectable units. Effects on resources were determined to be major in 16 cases, moderate in 11 cases, and minor in 32 cases. Included in the 59 offsite impacts were two offsite impacts that occurred on permits that are in the bond forfeiture process. More than half of the offsite impacts mentioned below were hydrology related impacts. The impacts were associated with uncontrolled runoff (17), failure to meet effluent limitations (9), failure to maintain sediment basins (5), failure to provide bond on all disturbed acreage (5), conducting mining activities outside of the permitted and bonded area (3), failure to build basins (3), failure to maintain roads (3), failure of the operator to follow operation plans (2), failure to control airblast (2), other hydrology (2), failure to blast within peak particle velocity (1), failure to certify basins (1), failure to construct or maintain diversions properly (1), failure to construct primary haul roads according to plan (1), failure to construct sediment basins to the approved design plan (1), failure to maintain the 100-foot setback (1), failure to obtain a permit (1), and other general (1).

Twenty-seven offsite impacts occurred on 20 inspectable units in EY 2002, 25 offsite impacts occurred on 18 inspectable units in EY 2003 (a nine-month evaluation period), and 59 offsite impacts occurred on 34 inspectable units in 2004. Alabama's inspectable units as of June 30, 2004, totaled 225. Therefore, in EY 2004, offsite impacts occurred on 15.1% of permitted, inspectable units.

Of the offsite impacts reported in EY 2004, it is important to note that four companies, out of a total of 21 companies cited for offsite impacts, had permits in which 30 of the 59 offsite impacts occurred. These four companies were responsible for one-half of all offsite impacts that occurred during this evaluation year.

A substantial increase in the number of offsite impacts occurred in EY 2004 compared to what was reported in previous years. It has been noted that one-half of the offsite

impacts occurred on permits operated by four companies. The ASMC inspection staff routinely discusses potential field problems with mine site personnel to prevent offsite impacts and violations from occurring. In an effort to decrease the number of offsite impacts, the State should consider writing letters stressing the need for regulatory compliance to companies with multiple offsite impacts. ASMC should also continue to use its civil penalty and permit suspension processes to encourage compliance with Alabama surface mining laws and regulations. The BFO has concluded from this review that the State is discovering and citing violations involving offsite impacts as they occur. No instances were noted in which the State inspector failed to take proper enforcement actions.

#### B. <u>Reclamation Success:</u>

ASMC's effectiveness in ensuring successful reclamation through compliance with performance standards relative to bond release was evaluated. A sample of bond releases reviewed by ASMC after July 1, 2003, was selected for this evaluation. The bond releases reviewed encompassed seven permitted sites. This sample included Phase I, II, and III bond releases. The field reviews occurred throughout the evaluation year. All of the sites were reviewed prior to ASMC's approval/denial of the bond release request.

The following parameters were evaluated through field observations and/or review of the State bond release files:

- Phase I Approximate Original Contour (AOC) achievement
- Phase II Replacement of soil resources, vegetation stability
- Phase III Postmining land uses, successful revegetation, surface water quality and quantity, restoration of ground water recharge capacity, comparison of premining to postmining surface water quality and quantity restoration

#### Phase I

The BFO inspected and conducted permit file reviews on two increments requested for Phase I bond release, totaling 137 acres. These increments were field inspected for AOC achievement, toxic material coverage (where indicated), and the removal of temporary structures and equipment. When indicated, water discharge was tested, toxic material coverage was measured, and topsoil variance compliance was analyzed. A permit file review was conducted to compare the premining/postmining surface and ground water data and compliance with NPDES requirements.

Both increments were determined to have met the requirements for Phase I bond release. These increments had achieved AOC and toxic material had been covered when applicable. The permit files reflected a comparison of premining/postmining surface/groundwater quality, compliance records of NPDES monitoring points were on file, and documentation reflected that temporary structures and equipment had been removed. OSM agreed with ASMC's approval of these Phase I bond release requests.

#### Phase II

The BFO inspected and conducted permit file reviews on two Phase II increments representing 77 acres. Onsite inspections were conducted to determine the presence of topsoil or suitable soil replacement, to verify the establishment and presence of approved vegetation, to determine that vegetative success standards were met (80% cover), and to assure that the site was stabilized. A determination was also made that lands were not contributing suspended solids off the permit and that removal of temporary ponds and diversions was completed. The permit files were reviewed to determine acres of basins approved as permanent water impoundments, the applicability of prime farmland productivity, and the presence of topsoil waivers.

Both increments in this sample met the requirements for a Phase II bond release. These increments reflected suitable soil replacement, adequate and approved species of vegetative cover, and site stabilization (no rills or gullies). All temporary ponds and diversions had been appropriately removed, remaining basins were approved as permanent water impoundments, and reclamation did not contribute to suspended solids off the permit. OSM agreed in both cases with ASMC's determination of approval of these Phase II bond release requests.

#### Phase III

The BFO inspected and conducted permit file reviews on three increments, totaling 130 acres, for a Phase III bond release. These sites were field inspected for the achievement of postmining land use and successful vegetative cover. The permit files were reviewed to determine the approved postmining land use, the monitoring of the quality of surface and groundwater, and compliance with surface water discharge effluent limits. The permit files were also reviewed to determine that the appropriate liability periods had been met, and that productivity data was adequate.

Two increments in this sample were determined to have met the requirements for a Phase III bond release. These increments had achieved postmining land use, vegetative success, and met water quality standards. Permit files reflected that water leaving the minesite was comparable to or better than pre-mining conditions (where applicable) and that compliance with surface water discharge effluent limits had been verified. In all cases, the liability periods had been met.

The remaining increment in this study was denied a Phase III bond release due to a slump area at the top of the highwall which required repair and stabilization before Phase III release approval.

OSM agreed in all cases with ASMC's final determination of approval/disapproval of the Phase III bond release requests.

#### **Processing Time frames**

As part of this study, time frames were reviewed from the receipt of the initial bond release request to the date of final approval/disapproval by the ASMC Director. Documentation was available in the files which indicated that ASMC is in constant correspondence with the permittee to obtain required information as needed for a complete bond release application. When all information is received and/or time frames for review requested by affected parties have lapsed, ASMC notifies the permittee of the approval or disapproval of the bond release request.

The BFO determinations were consistent with ASMC's final actions on Phase I, II, and III bond releases on sites inspected in this sample. With one exception, all acreage met the approved reclamation plan, postmining landuse, and required release standards. The notification regarding approval or disapproval to the permittee appeared to be timely. Based upon this review, the BFO has determined that ASMC's decisions on approving bond release requests met the requirements of the approved Alabama surface mining program. The table below shows figures for acres bonded, released, and forfeited from 1983 – 2003 and for 2004. The bond release and forfeiture figures for 2004 are also shown in Table 5.

Evaluation Year	Acres Bonded	Phase I Release Acres	Phase II Release Acres	Phase III Release Acres	Bond Forfeiture Acres
1983 – 2003	110,126	78,367	51,861	51,903	11,635
2004	2,569	1,610	1,251	3,285	455
TOTAL	112,695	79,977	53,112	55,188	12,090

#### C. <u>Customer Service:</u>

For EY 2004, to evaluate the effectiveness of customer service provided by ASMC, compliance with Applicant/Violator System (AVS) responsibilities was reviewed.

The review sample included records for all permits issued between July 1, 2002, and June 30, 2003; transfers, sales, and assignments of permit rights issued for the same time frame; and Failure-to-Abate Cessation Orders (FTACO's) issued during the same time. This sample was composed of 10 issued permits, nine permit transfers, and five FTACO's.

Permit and license files were reviewed to determine that: 1) complete ownership and control (O&C) data was in the license files; 2) O&C data was verified by ASMC as required by the AVS Memorandum of Understanding (MOU); 3) ASMC entered the data

into the AVS in a timely and accurate manner; 4) ASMC conducted on-the-ground inspections to verify O&C data; 5) ASMC took appropriate action to stop operations where the operator was not approved in the permit; 6) FTACO information was entered into the AVS in a timely manner; and, 7) O&C updates were required after the issuance of a FTACO.

A review of the license files revealed that all newly issued permits and permit transfers contained updated O&C information, and a violation review was performed for each applicant. O&C information is also checked through the Alabama Secretary of State's ownership and control database system. An AVS query was performed on the company, owners, and officers listed in the license application.

All 19 permits of the sample study (10 new permits and nine permit transfers) were entered into AVS within 30 days of issuance. ASMC requested a final AVS evaluation report on all newly issued permits and transfers except for the transfer of one permit. ASMC requested timely final evaluation reports (within five days of permit issuance) at all times when the AVS was available. ASMC also performed a field evaluation to verify O&C information after the mining operation was initiated on most permits.

During the study period ASMC issued five FTACO's that were not terminated within 30 days. The FTACO's were not entered into the AVS database in accordance with established time frames. ASMC updates the O&C information for a viable company after the issuance of a FTACO. In response to the study, ASMC implemented changes to assure that FTACO data was entered into the AVS in a timely manner. Overall, ASMC is performing timely and accurate verification and entry of O&C information into the AVS database in accordance with the AVS MOU.

The BFO also recommended that ASMC ensure that all permit sites have an on-the-ground inspection to verify the O&C information provided by the applicant.

#### VI. OSM ASSISTANCE

OSM's oversight role has shifted to focus more on on-the-ground reclamation success and end results than on processes. OSM's changing role now emphasizes assisting the State in improving its regulatory and abandoned mine land programs by identifying program needs and offering financial, technical, and programmatic assistance as necessary to strengthen the State programs. The BFO routinely provides information to ADIR and ASMC regarding new policy guidelines and procedures as well as changes in existing guidelines and procedures.

#### VII. GENERAL OVERSIGHT TOPIC REVIEWS

A. Program Evaluations of the State Regulatory Program

#### Sediment Pond Removal

The BFO reviewed sediment pond removal techniques to verify that the removal corresponded with the approved sediment pond removal plan in the permit's reclamation plan. Regulations associated with sediment pond removal are found in the Rules of the Alabama Surface Mining Commission (Rules) 880-X-10C-.17 and 880-X-10C-.27. Rule 880-X-10C-.17 states that a temporary sediment pond must be removed in accordance with the ASMC approved removal plan and specifies time constraints for removal as associated with site stability. Rule 880-X-10C-.27 addresses the timing for temporary sediment pond removal.

The permits sampled for this study included Phase II bond releases subsequent to September 2002 as well as any temporary sediment pond removals that occurred without a Phase II bond release submittal. There were ten permits evaluated for this study from January 2002 through January 2004. The BFO conducted a file review to collect the data submitted by the permittee before the pond was removed.

File and field reviews verified that the timing of sediment pond removal was in compliance with regulations set in Rule 880-X-10C-.27. The BFO's review concerning whether the pond removal was conducted in accordance with the approved plan showed that pond removals in four of the ten permits followed the plans. On the remaining six permits, there were inconsistencies between the approved plan and the actual construction activities in the areas of 1) channel construction, 2) revegetation of the pond area, and 3) the modification of channel and pond design in the field without prior ASMC approval.

On the one permit where the channel construction did not conform to the approved removal plan, ASMC concurred with the concerns identified during the joint inspection and notified the surety to address the identified deficiencies. ASMC committed, as a result of the study, to ensure that ponds are removed according to the approved plans.

Seeding and mulching of the pond area was identified as a concern during the study. Although site conditions, such as the pond location or the shape of the pond, could make seeding and mulching difficult, ASMC agreed to require seeding and mulching of the pond areas unless site specific conditions prevented this reclamation activity.

Sediment ponds removed on two permits involved modifications of the removal plan in the field. The BFO recognized that there are times when modifications are required to better fit the circumstances of a particular pond removal site. As a result of the study, ASMC agreed that revisions must be reviewed and approved by the technical staff before the modifications are made in the field. They also agreed to place any changes to the original plan in the permitting files to maintain a complete record of reclamation activities.

#### **Groundwater Monitoring**

This study was Phase II in a multi-year review of ASMC's adherence to State regulations covering groundwater monitoring. This study concentrated on: 1) proper installation, maintenance, and operation of equipment needed for groundwater monitoring; 2) depth of groundwater wells; 3) monitoring of required parameters; and, 4) determining mining impacts on the hydrologic balance through use of groundwater data.

The study concluded that ASMC responded to the BFO's EY 2003 groundwater study in requiring that all monitoring wells specified by the permit be in place, maintained and monitored. The State had also evaluated wells that had been destroyed, collapsed or mined through and made determinations on which wells had to be replaced and which could be waived from future monitoring. During Phase II of the study, the BFO field inspected the 19 permits chosen for the study and determined that, in the majority of permits, groundwater wells were installed in the correct location, were being maintained, and operated as required. Minor maintenance problems noted on two permits were either corrected during the review year or are still under State enforcement action.

The BFO determined that permittees were being required to monitor groundwater below the lowest coal seam to be affected. During the EY 2003 study, the BFO had noted that not all parameters required in the groundwater monitoring plan were being monitored by the permittees. The analysis of required parameters conducted during the EY 2004 study showed that ASMC had taken immediate and appropriate action to require that permittees monitor for all required data.

Interviews with the ASMC hydrologist showed that analyses to determine effects on the hydrologic balance and material damage were being made. The study showed that documentation of the analyses did not include a discussion of the parameters analyzed or explain the rationale behind the agency's decision on material damage. The BFO recommended that the analysis of the effects of mining on the hydrologic balance and the material damage evaluation be fully discussed and documented in the permit file.

The BFO also recommended that ASMC expand the current computerized database used for Hurricane Creek to all watersheds in order to input and track groundwater baseline and monitoring data so that ASMC technical and inspection staff, industry representatives, and the public would have available for their use continuous data on the groundwater effects from permitted mine sites. The BFO provided ASMC with computerized graphs of data obtained during Phase I of the groundwater study.

#### Timeliness of Revegetation

This study determined compliance with revegetation timeliness and soil stabilization practices of active permit sites. Rule 880-X-10C-.60 states that the permittee shall plant disturbed areas during the first normal period for favorable planting conditions after replacement of the plant growth medium. The timing for revegetation and soil

stabilization practices are also found in Rule 880-X-10C-.60. ASMC's policy memorandum of March 30, 1995, establishes planting deadlines.

The study had both file and field review components. The BFO selected a sample of 10 permits where revegetation had occurred or where a portion of the permit was awaiting seeding after grading and topsoil replacement. This study reviewed 1) the timing of revegetation as related to planting seasons, 2) erosion control practices used by the operators to minimize erosion after soil replacement but prior to planting, and 3) ASMC's use of soil stabilization waivers.

The file reviews indicated that revegetation plans and schedules were included in all the permits reviewed. Each plan included the species to be planted with a general timetable for planting. No soil stabilization waivers were issued.

The field reviews showed that disturbed areas on nine of the 10 permits had been revegetated in a timely manner as per the <u>Rules</u> and ASMC's policy. The approved seed mix per the application revegetation plan had been planted on the nine permits. Where appropriate (eight of the nine permits), the disturbed areas had soil amendments added and/or were mulched. Since revegetation was timely and successful on the nine permits, it was not necessary to include extra erosion control practices for these areas. One of the ten permits had not been revegetated in a timely manner. ASMC issued enforcement action requiring that revegetation be performed.

ASMC is monitoring and enforcing their regulations and policies for timeliness of revegetation. If a permittee does not revegetate graded areas in a timely manner as directed by their revegetation plan and ASMC's regulations and policy, the permittee is issued an NOV.

#### Special Emphasis

The BFO conducted a study that placed an emphasis on specific performance standards in joint oversight inspections with ASMC. The joint inspections reviewed all performance standards pertinent to the minesite, but placed an emphasis on four standards: 1) the maintenance of temporary diversions; 2) the maintenance of sediment ponds; 3) regrading or stabilizing rills and gullies; and, 4) the establishing and marking of 100-foot stream buffer zones. The BFO collected data from 21 joint inspections conducted between September 9, 2003, and February 10, 2004. The findings are as follows:

#### 1) Maintenance of temporary diversions, Rule 880-X-10C-.14(1)(b)

Eighteen of the 21 permits reviewed contained temporary diversions. On 13 permits, all diversions were stable, were protecting against flooding, were preventing additional suspended solids from entering streams outside the permit area, and complied with applicable local, State and Federal laws and regulations. On two permits, the diversions

were being cleaned out or needed cleaning out at the time of the site visit, but the amount of eroded material was not compromising the diversions.

Various concerns with the diversions were noted on the remaining three operations. One permittee had failed to maintain the temporary diversions on the minesite, resulting in heavy erosion of the structures. ASMC had issued enforcement action, and the problems were being abated. On the second site, a diversion had been mechanically breached by the operator. Again ASMC had issued enforcement action as a result of the problem. The BFO noted on the third site that diversions to one pond had not been built according to the typical design, and their location could cause surface drainage to short circuit to the principal spillway. ASMC addressed this concern through the enforcement process.

#### 2) Maintenance of sediment ponds, Rule 880-X-10C-.16 (1)

The maintenance of sediment control structures was analyzed on the 21 permits selected for this review. The regulations specify that "appropriate sediment control measures shall be designed, constructed, and maintained using the best technology currently available to: (a) prevent, to the extent possible, additional contributions of sediment to streamflow or to runoff outside the permit area; (b) meet the more stringent of applicable State or Federal effluent limitations; and (c) minimize erosion to the extent possible".

Sediment structures on 20 of the 21 permits reviewed met all of the requirements of the regulations. One permittee had failed to maintain five sediment ponds. Maintenance concerns included excessive erosion of the slopes adjacent to the basins, erosion in the emergency spillways, and seeps around the principal spillways. ASMC had previously issued enforcement action to address the observed problems. Many of the problems had been corrected at the time of the BFO site visit, while the remaining problems were in the process of being corrected.

#### 3) Regrading or stabilizing rills and gullies, Rule 880-X-10C-.57

This performance standard requires the permittee to fill, grade, stabilize, reseed or replant any areas that have been regraded and topsoiled, where rills and gullies deeper than nine inches have developed. In addition, if rills or gullies shallower than nine inches develop that may be disruptive to the approved postmining land use or which may result in additional erosion and sedimentation, ASMC may require that these areas be stabilized and reseeded.

In seven of the 21 permits, rills and gullies were either not present or mining had not progressed far enough for portions of the mine site to be regraded and topsoiled. Rills and gullies on ten of the permits had been stabilized by the permittee and did not require attention from the regulatory authority. On four permits, ASMC had issued enforcement action or required the operator to modify the reclamation schedule to achieve compliance with the rills and gullies regulation.

#### 4) Establishing and marking 100-foot stream buffer zones, Rule 880-X-10C-.28

Rule 880-X-10C-.28 specifies that "no land within 100 feet of a perennial stream or an intermittent stream shall be disturbed by surface mining activities", unless ASMC makes a finding that the mining activities will not cause or contribute to a violation of State or Federal water quality standards, will not adversely affect the water quantity, quality or other environmental resources of the stream, and that any temporary or permanent stream-channel diversions will comply with regulations covering the design and construction of these diversions. There are identical regulations for underground mining operations at Rule 880-X-10D-.26.

Fifteen of the 21 permits reviewed did not involve mining activity within 100 feet of a perennial or intermittent stream. The remaining six permits indicated 100-foot buffer zones were required and, in each case, the buffer zones were correctly flagged in the field. In four of these cases, the ASMC allowed encroachment within the buffer zone after making the finding that the encroachment would not have an adverse impact on the identified stream.

#### Reclamation In Lieu of Forfeiture

The purpose of this evaluation was to provide a follow-up to the bond forfeiture study conducted in EY 2000. As a result of the EY 2000 report, the following areas were selected for review: 1) that the requirements of reclamation agreements were closely adhered to so that delays in the collection of forfeited bonds and in obtaining reclamation of the site were minimized; and, 2) that written documentation was maintained in the case files outlining extensions and delays in the reclamation process as agreed to by ASMC.

The BFO identified permits placed in a show cause/bond forfeiture status, and selected a sample of 14 permits to be reclaimed by the surety/financial institution for review. Twelve of the 14 permits in this sample contained consent agreements, or alternative documents, outlining reclamation activities and time frames.

With one exception, the surety or other contractor was found to have successfully completed regrading and revegetation as required by the consent agreement. However, for 10 of the 14 sites, regrading or revegetation was not completed within the initial time frame provided in the agreement. While the ASMC files reflected repeated demands to the surety/contractor to perform the reclamation or make payment under the bond, in almost all cases, the surety/contractor was slow to respond.

Reclamation conducted on the 14 sites accomplished backfilling and grading of all open pits and the elimination of all highwalls. Since this is one of the more costly milestones in the reclamation process, site liabilities were substantially reduced. With the exception of one permit, all permits have received at least a Phase I bond release on all, or portions (incremental releases), of the acreage affected by the mining process. Two of the permits

have received Phase II and III releases on the majority of the mined acreage, while a third permit has received a Phase II bond release on all acreage affected and reclaimed.

Joint field inspections, however, identified only three of the 14 permits meeting all the performance standards applicable during the reclamation process. The majority of the deficiencies were related to failure to conduct surface and groundwater monitoring per the approved hydrologic plan, failure to address erosion, failure to maintain diversions and sediment ponds, and failure to inspect and re-certify sediment ponds.

To enhance communication between the State and those conducting reclamation activities and to clarify all remaining reclamation obligations, the ASMC has initiated the following actions:

Upon completing an inspection, the field staff will contact those responsible for directing and/or conducting reclamation to discuss the inspection findings. The discussions are to include an evaluation of completed work, details of work to be completed, and will address time frames for the completion of remaining work.

The ASMC has required the sureties responsible for reclamation on 18 permits to provide detailed plans and timetables for completing the remaining reclamation activities by the end of this calendar year. The plans are to address all activities identified in the signed reclamation agreements.

OSM believes the ASMC should not hesitate to immediately demand payment of bonds and certificates of deposit when sureties and financial institutions fail to timely comply with consent agreements, or when the surety/financial institution fails to enter into a written consent agreement or an alternative reclamation document.

#### Notices of Intent (NOI's)

During EY 2002, the BFO conducted a study to determine ASMC's performance concerning the administration, inspection, and enforcement of regulatory standards on sites covered by notices of intent. A follow-up study was conducted to determine ASMC's response to the EY 2002 study recommendations.

The study concluded that ASMC had responded to the BFO's recommendations concerning administrative and enforcement issues. The file review of 28 NOI's demonstrated that ASMC had clarified their NOI form so that environmental practices are described as required. The interview also disclosed that State inspectors were advised to take appropriate enforcement actions on NOI's.

The file reviews showed much improvement from the EY 2002 study in the types and accuracy of information provided on the NOI forms. The majority of notices contained accurate administrative, environmental and locational information. ASMC agreed to continue working with operators and consultants to improve information on NOI's, so

that, for drilling operations, NOI maps or legal descriptions would show enough detail to locate exploration areas and assist in limiting disturbances to less than one-half acre.

Field reviews were conducted on both reclaimed and active NOI's. The field visits to three reclaimed sites showed that all requirements of the NOI regulations were being met. Site visits on three active sites showed that the exploration on one NOI met all requirements. Disturbance at the second site had not been reclaimed, although the drill holes had been filled. The site received a State NOV as a result of the joint BFO/State inspection. The third site was well over the one-half acre limitation for NOI's and had received basically no reclamation or drainage control. A State NOV was issued as a result of the joint BFO/State inspection. One NOI overlapped another and was directly adjacent to the third, contrary to ASMC's internal NOI policies.

The study found variation among field personnel concerning the application of ASMC's policy on road reconstruction as it applies to NOIs. ASMC committed to working with field personnel to assure consistent application of its road reconstruction policy.

#### B. <u>Program Evaluations of the State Abandoned Mine Land Program</u>

# The Walker County Soil and Water Conservation District Board's (the Board) Revegetation Cost Comparison

During EY 2002 and 2003, the BFO conducted reviews to evaluate the cost effectiveness, quality, and efficiency of revegetation on AML projects constructed and revegetated by contractors and those contractor-constructed projects planted by the Board. Both evaluation reports revealed that the Board operated in a cost effective and efficient manner and performed quality work. However, there appeared to be little difference in cost or quality of initial revegetation by contractors and the Board's revegetation of completed contractor projects. As requested by ADIR, this review included a larger sample of revegetation activities performed by the Board and by private contractors.

Contractor cost data was taken from an itemized listing of costs which included lime, fertilizer, seed and mulch from ADIR project files. The Board revegetation costs were supplied by the Walker County Board. The cost data did not include mobilization costs for contractors or overhead costs for the Board. The BFO determined that the manner in which mobilization or overhead costs were allocated to project activities had a significant impact on the total cost of each project. Neither mobilization costs for contractors nor Board overhead costs could be effectively broken down for application to revegetation activities alone. Lacking this data, the BFO was unable to develop a methodology for distribution of these costs that was consistent for both contractor and Board projects.

#### **Project Construction**

Each evaluation year, the BFO conducts an on-the-ground review to document ADIR's success in reclaiming AML problems. This year the BFO evaluated ADIR's project

construction. The study covered the period of July 1, 2003, through May 31, 2004. It involved both a file and a field review of five non-emergency projects in each of the following categories: 1) pre-construction, 2) during-construction, and 3) post-construction phases of the AML construction program.

The pre-construction sample was taken from those projects submitted to the BFO for authorization to proceed during the study period. The elements reviewed were compliance with NEPA and the National Historic Preservation Act (NHPA), and accuracy of the AML inventory information.

The during-construction sample was taken from those projects that were under active construction during the study period. The elements included in the review of these projects were permits obtained, environmental controls, project design as it relates to addressing the AML features to be reclaimed, and construction of the project according to the design.

The post-construction sample was taken from those projects completed during the study period. Any of the projects reviewed during construction were included in this sample. The elements included in the review of these projects were land and/or structure stability, erosion control, elimination of the AML problem, project construction according to design, and project maintenance.

Pre-construction reviews showed that all appropriate documentation was furnished to the BFO in the Authorization to Proceed requests. All projects were in compliance with NEPA requirements. None of the five projects required action under the NHPA. AML inventory Problem Area Descriptions (PAD's) were submitted with each project.

During construction reviews showed that all required documents were in the files including project maps, PAD's, contracts (where applicable), the Board's reclamation plans (where applicable), daily reports, and payment requests and documentation. All required permits, including NPDES and burn permits, were obtained in a timely manner. All projects had appropriate Best Management Practices (BMP's) in place. The field visits revealed that erosion and sediment control devices were functioning properly. Other BMP's were being used as appropriate. No notable erosion or offsite sedimentation was noted on any of the projects. The projects were designed to eliminate the AML features using environmentally sound and cost effective methods. The projects were being constructed according to the design plans.

Post-construction reviews showed that all required file documentation was in the files, such as daily monitoring reports, final inspection reports, and final payment requests. All grading, highwall backfill, and structures (included dams and impoundments) constructed on the projects were stable. All erosion and sediment control devices were functioning properly. No significant erosion or offsite sedimentation was noted on any of the projects. All sites were well vegetated. All AML features proposed for reclamation were eliminated. All projects were constructed according to design plans.

Post-construction monitoring and maintenance reviews showed that maintenance activities were documented in the files. All five completed projects received post-construction maintenance. The project maintenance included top-dressing and overseeding, erosion control, and repair of drainage control devices. Top-dressing and overseeding are performed as part of normal/scheduled maintenance. The site visits indicated that the maintenance performed was successful in alleviating any post-reclamation concerns.

#### Ranking and Selection Procedures

ADIR's ranking and selection procedures specify sites eligible for AML reclamation and the chronological sequence of project development. The ranking and selection procedures include reclamation priorities, project selection, consultations with other agencies, public participation, and inventory submissions.

The study included all non-emergency projects that were issued an authorization to proceed/approved between July 1, 2002, and June 30, 2003 (a total of eight projects). The elements of the ranking and selection procedures reviewed were:

- Eligibility determination
- AML inventory update
- Feasibility
- NEPA compliance
- Consultations with the appropriate agencies
- Public participation.
- ADIR personnel were interviewed to determine their current procedures for selecting projects to receive reclamation funding.

The following procedures are used by ADIR to select projects for reclamation:

- Sites are initially identified through complaints received from citizens and landowners, chosen from high priority sites on the AML inventory, and/or identified/discovered by AML personnel. Eligible sites reported through citizen or landowner complaint and those identified/discovered by AML personnel are placed on the Abandoned Mine Land Inventory System (AMLIS). At this time, there are 242 PAD's that contain unfunded Priority 1 and/or 2 features in AMLIS (Alabama's AML inventory is made up of 953 PAD's).
- Prior to the yearly selection of AML projects, projects in the inventory that are technically or fiscally unfeasible to reclaim, and those projects located on land where the landowner will not give permission/right of entry for ADIR to reclaim, are eliminated from selection. The remaining projects are considered to be feasible to reclaim.

- Approximately 30 to 40 projects remaining after the feasibility determination and considered to be the most deserving and urgent for reclamation are selected from the inventory.
- Site evaluations are performed on each site. At this point in the process, preferred reclamation alternatives and estimated costs are discussed. Completed project narratives are prepared, and the projects are ranked in order of preference for reclamation.
- The project selection committee meets in a formal session to discuss and compare in detail the merits of the projects recommended for inclusion in the construction grant. Factors considered by the committee include:
  - 1. Degree of magnitude of the hazard
  - 2. Number of persons affected
  - 3. Acreage affected
  - 4. Project cost versus available funding
  - 5. Community support (including landowners and adjoining landowners)
  - 6. Future mining potential
  - 7. The acceptability of any additional adverse impacts to people or the environment.

With all the information gathered, each project is weighted. At least one large project, several medium sized projects, and a few small projects are selected. Alternate projects are also selected in the event more AML funds become available; these projects are seldom reclaimed using that year's grant due to funding considerations. The amount of available funding limits the number of projects undertaken each year. Project selection for inclusion in a construction grant is completed once annually. All eight projects in the study sample were selected using the above procedures.

A review of the files and the AMLIS revealed that all elements of the project ranking and selection procedures required by Alabama's approved <u>Abandoned Mine Land</u> <u>Reclamation Plan</u> (Plan) were followed and documented in the files. This included eligibility determinations, NEPA planning, consultation considerations, and NHPA. All project features selected for reclamation were entered into the AMLIS system and opportunity for public participation was provided.

ADIR selects projects for reclamation funding according to the Plan. Once a project was selected for funding, ADIR followed the procedures required by the Plan including eligibility determinations, inventory preparations, feasibility determinations, NEPA determinations and planning, consultations, and public participation.

#### Abandoned Mine Land Inventory System

The State utilizes the procedures and forms described in OSM Directive AML-1 to prescribe the format and timing of inventory submissions. Updating AMLIS is essential

to insure that program decisions are made using current and accurate information. Maintaining and updating AMLIS includes making changes to reflect newly discovered problem areas, indicating changes in priority status, and capturing program accomplishments in terms of reclamation cost and problems reclaimed.

In order to verify that the information entered in AMLIS during the year matched the information maintained in hard copy, the BFO reviewed all PAD's entered into AMLIS by ADIR as part of their AML grant closeout. Thirteen PAD's were reviewed. A sample comprised of nine PAD's revised after September 30, 2002, that contained unfunded costs, was also reviewed. A total of 22 PAD's were reviewed. The review emphasized accuracy of features, costs, and latitude and longitude entries.

Of the 22 PAD's reviewed, the features entered into AMLIS for 18 of the PAD's were accurate. Of the four with inaccuracies, one also contained inaccurate costs. The review revealed that, in four instances, the latitudes and longitudes shown on the PAD's did not agree with the problem areas' locations.

An interview was conducted with the ADIR staff to discuss procedures to ensure and to certify the accuracy of data that has been entered into AMLIS. These procedures are required to meet the recommendations made by the Department's Inspector General to establish a quality control system that ensures that States, Tribes, and OSM, as applicable, review and certify the accuracy of data entered into AMLIS.

In the majority of cases, information entered into AMLIS is complete and accurate. ADIR has established procedures to ensure the accuracy of data entered into AMLIS and has established procedures to certify the accuracy of AMLIS entry. ADIR has provided the BFO with a signed certificate describing these procedures. ADIR has also begun a review to verify that correct latitudes and longitudes are reported on the PAD's and are entered in AMLIS.

#### C. Program Evaluations Carried Over into EY 2005 – State Regulatory Program

#### Particle Size on Topsoil Replacement

The BFO proposed to conduct a study to determine if the procedure used by mine operators to substantiate particle size on topsoil replacement material met the specifications approved in the permit. A joint meeting between the BFO and ASMC was held to discuss the study. Topsoil and soil substitute sampling procedures were discussed. The Mid-Continent Regional Coordinating Center (MCRCC) assisted the BFO with this review. ASMC provided the BFO with its current Topsoil Variance Proposal Guidelines. The BFO plans to continue the study into EY 2005.

#### D. <u>Assistance Activities Carried Over into EY 2005 – State AML Program</u>

#### AMD Mitigation Techniques for Alabama

ADIR requested technical assistance on the acid mine drainage mitigation techniques used on four completed Appalachian Clean Streams Program projects and one project completed under the Watershed Cooperative Agreement Program to determine which techniques had remediated or reduced acid mine drainage problems, which techniques could be improved, and then to develop a list of techniques that could be most useful to State remediation efforts. MCRCC performed the review of this assistance request. Water quality, mapping, and project description data was provided to the MCRCC by ADIR and the BFO prior to the site visits. Site visits of the five projects were conducted on May 25-27, 2004, with representatives from the MCRCC, ADIR, and the BFO. Project-specific reports, detailing their recommendations, will be developed by the MCRCC during EY 2005.

### **APPENDIX A**

## TABULAR SUMMARY OF CORE DATA TO CHARACTERIZE THE PROGRAMS

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

## **APPENDIX B**

# STATE COMMENTS ON THE REPORT