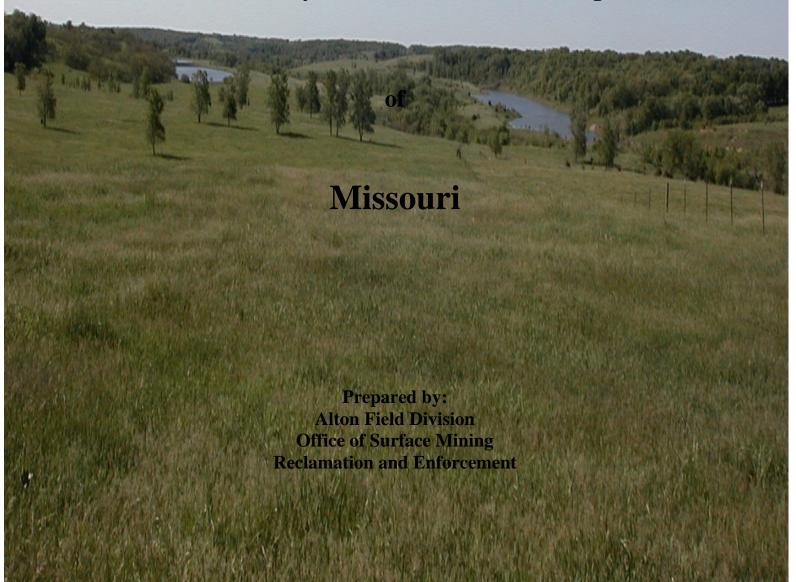


2007 Annual Evaluation Summary Report

for the

Regulatory and Abandoned Mine Lands Programs

**Administered by the Land Reclamation Program** 



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Cover page is a photo of reclaimed bond forfeited land at Missouri Mining Pit 3 in Putnam County Missouri

# I. Executive Summary

During the 2007 Evaluation Year (EY), the Office of Surface Mining Reclamation and Enforcement (OSM), Alton Field Division (AFD) conducted oversight evaluations of the Missouri Department of Natural Resources (DNR), Land Reclamation Program (MLRP) Regulatory and Abandoned Mine Land (AML) Programs. The oversight studies focused on the success of the MLRP in meeting the Surface Mining Control and Reclamation Act of 1977 (SMCRA) goals for environmental protection and prompt, effective reclamation of land mined for coal. A Partnership Plan in the form of a Performance Agreement (PA) was cooperatively developed by the AFD and the MLRP to tailor the oversight activities to the unique conditions of the State program. The purpose of the oversight activities was to identity the need for financial, technical, and other program assistance to strengthen the State program. EY 2007 marks the first full evaluation year since the MLRP resumed full primacy on February 1, 2006.

In support of OSM's national initiatives, the following studies were included in the EY 2007 Performance Agreement:

**OFF-SITE IMPACTS** - Data on off-site impacts were collected during Federal and State inspections. No off-site impacts were identified at the 17 active units in Missouri. Three off-site impacts that were identified prior to EY 2007 remained at bond forfeiture sites. Of the 31 Inspectable Units (IU's) in the state during the EY, over 90 percent were free from off-site impacts. One previously identified off-site impact was eliminated during EY 2007. Off-site impacts are being eliminated as bond forfeiture reclamation is completed.

**RECLAMATION SUCCESS** – During EY 2007, the MLRP released Phase II bond on 35.00 acres and Phase III bond on 1,312.36 acres. Based on field observations and review of documentation contained in bond release request files, OSM determined that all the bond release applicants met the performance standards for each phase of bond being requested for release, and the State appropriately released the bonds as requested. The number of acres in Missouri that achieved Phase III release in EY 2007 was nearly double the 711.00 newly bonded acres for the evaluation period.

**CUSTOMER SERVICE: PUBLIC PARTICIPATION IN THE PERMITTING PROCESS** – Based on a file review and a visit to a county courthouse to document public availability of a new mine permit application, the AFD determined the MLRP is providing the public participation in the permitting process as provided by the state regulations.

General oversight topic reviews were conducted for both the State Regulatory and AML Programs. The following reports were completed:

**BOND FORFEITURE RECLAMATION** – OSM has been concerned about the backlog of reclamation that needs to be accomplished at bond forfeiture sites in Missouri. **August 16, 2007** 

During EY 2006 and EY 2007, the MLRP aggressively pursued forfeiture reclamation. The Missouri Land Reclamation Commission (MLRC) released reclamation liability on 13 permits covering over 2,000 acres at bond forfeiture sites in EY 2006 and released liability on four permits covering over 1,200 acres this evaluation year. Compared to previous years, for the period EY 2001 through EY 2005, reclamation liability release was achieved on only 825 acres covered by six permits.

**SURETY RECLAMATION -** AFD conducted a field evaluation at the only currently active surety reclamation site in Missouri to evaluate MLRP's effectiveness in ensuring "in-lieu-of-forfeiture" surety reclamation is being conducted in accordance with applicable state regulations. Evaluation findings verified that the MLRP requires "in-lieu-of-forfeiture" surety reclamation to comply with the State's performance standards.

**ABANDONED MINE LAND INVENTORY SYSTEM (AMLIS) CERTIFICATION AND DATA ACCURACY**— OSM concluded that, in EY 2007, the MLRP increased and trained key AML staff and amended and improved the procedures used to enter data into AMLIS. The AML Program's procedures and processes are fully effective and successful in ensuring accuracy of data entered into AMLIS.

**AML POST-CONSTRUCTION EMERGENCY PROJECTS -** OSM concluded that design goals are being achieved and emergency projects are being completed in a cost-effective manner. None of the completed projects required additional maintenance work.

**AML POST-CONSTRUCTION PROJECT SUCCESS** – OSM found that the MLRP performs reclamation in a cost-effective manner that meets AML Program goals and results in a net benefit to society, and that the long-term success of reclamation projects implemented by the MLRP is very good.

# II. Introduction

The SMCRA created OSM in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State Regulatory and AML Programs approved by OSM. This report contains summary information regarding the Missouri Program and the effectiveness of the MLRP in meeting the applicable purposes of SMCRA as specified in Section 102. The evaluation period covered by this report is July 1, 2006, through June 30, 2007.

The primary focus of the OSM oversight policy for EY 2007 is an on-the-ground results oriented strategy that evaluates the end result of State program implementation; i.e., the success of the State program in ensuring that areas off the mine site are protected from impacts during mining and that areas on the mine site are contemporaneously and successfully reclaimed after mining activities are completed. The policy emphasizes a shared commitment between OSM and the States to ensure the success of SMCRA through the development and implementation of a performance agreement. Also, the policy encourages public participation as part of the oversight strategy. Besides the primary focus of evaluating end results, the oversight guidance makes clear OSM's responsibility to conduct inspections to monitor the State's effectiveness in ensuring compliance with SMCRA's environmental protection standards.

To further the idea that oversight is a continuous and ongoing process, this annual report is structured to report on OSM's and Missouri's progress in conducting evaluations and completing oversight activities and on their accomplishments at the end of the evaluation period. Background information and finding reports for the program elements evaluated during the period are available for review and copying at OSM's Mid-Continent Region (MCR) office at 501 Belle Street, Alton, Illinois, 62002.

The Missouri State Legislature eliminated general funding for the State's coal program in EY 2004. As a result, OSM temporarily assumed responsibility for enforcement of the Missouri state regulations, as well as permitting and bond release activities, at Missouri's active mine sites. The MLRP retained its jurisdiction over bond forfeiture and surety reclamation sites.

OSM did not award Missouri any additional funding for Title IV during this time. OSM continued to provide Missouri funding for its AML Emergency Program during this period.

On May 27, 2005, Missouri Governor Matt Blunt notified OSM that Missouri intended to fully fund the Coal Mine Regulatory Program. To prepare Missouri for resumption of full primacy, joint inspections and joint review of permitting activities were initiated in August of 2005. In addition, from October through December 2005, MCR Program Support Division (PSD) personnel provided MLRP staff members training in several different areas including permitting, blasting, bond calculation, and mobile computing.

One of the conditions to regain full regulatory program approval that was placed upon Missouri by OSM was to require full cost bonding instead of the use of bond pools. On December 21,

2005, Missouri filed four "emergency" amendments of its coal bond rules with the Missouri Secretary of State. The purpose of these rules was to allow the State to replace its "bond pool" bonding method with a "full cost" bonding method. The "emergency" rules were subsequently approved effective January 1, 2006, for a period of six months.

The MLRP resumed full control of its approved program when a final rule addressing "Termination of Federal Enforcement for Parts of the Missouri Permanent Regulatory Program and Return of Full Regulatory Authority to the State of Missouri", with an effective date of February 1, 2006, was published in the Federal Register on February 1, 2006. EY 2007 marks the first full evaluation year since the MLRP resumed full primacy.

The following acronyms are used in this report:

AFD Alton Field Division
AML Abandoned Mine Land

AMLIS Abandoned Mine Land Inventory System

BTU British Thermal Unit

DNR Missouri Department of Natural Resources

EY Evaluation Year

IMCC Interstate Mining Compact Commission

IU Inspectable UnitMCR Mid-Continent Region

MLRP Missouri Land Reclamation Program
MLRC Missouri Land Reclamation Commission

PA Performance Agreement PAD Problem Area Description PSD Program Support Division

OSM Office of Surface Mining Reclamation and Enforcement SMCRA Surface Mining Control and Reclamation Act of 1977 TIPS Technical Innovation and Professional Services

# III. Overview of the Missouri Coal Mining Industry

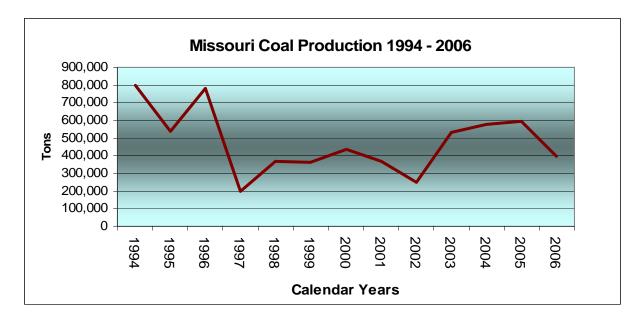
Coal deposits were first mined in Missouri in the late 1840's, giving the state the distinction of being the first state west of the Mississippi River to produce coal for commercial use. Although most of the early coal mines in the state were underground, surface mining began in the mid 1930's, and has accounted for virtually all the coal produced in Missouri since the 1960's. Approximately 67,000 acres were affected by coal mining in 48 Missouri counties before enactment of the SMCRA in 1977.

Missouri's coal ranges from lignite to high volatile A bituminous. It's coal reserve is estimated to be six billion tons, or 1.26 percent of the coal reserves in the United States. The coal-bearing areas cover about 23,000 square miles, or 33 percent of the State. Twelve of the 20 identified coal seams have been actively mined. The coal has a high heat value, averaging twenty-two

million British Thermal Units (BTU) per short ton. The sulphur content of 95 percent of Missouri's reserves is relatively high, greater than 2.5 pounds of sulphur per million BTU and averaging four percent by weight. Economics generally limit production to coal seams greater than 28 inches thick. Coal production is currently confined to the southwest portion of the State in Bates County.

Missouri supplies coal to the mid-western market for blending with western coal. The current primary use of the coal is for power generation.

Missouri's coal production has declined since reaching peak production of nearly seven million tons per year in 1984. A sharp decline to 627,774 tons occurred in 1993, down from the 1992 production level of 2,908,012 tons, after the state's largest operator ceased production in early 1993. Annual production has fluctuated during the last decade: however, production remained relatively steady during the period 2003-2005 when the two currently active mines produced 533,444 tons in calendar year 2003, 577,307 tons in calendar year 2004, and 595,347 tons in calendar year 2005. Production dropped to 394,099 tons in calendar year 2006. One reason for this decline was that one coal company opened a new mine in Kansas only a few miles from its producing mine in Missouri and production slowed at the Missouri mine when a portion of the company's work force was shifted to the Kansas mine.



# IV. Overview of Public Participation in Missouri's Approved Regulatory and AML Programs

Missouri and OSM consider the bi-monthly MLRC public meetings the principal forum for participation from industry, landowners, citizen groups, and other interested parties. Whenever the opportunity arises, MLRP personnel attend and set up displays explaining MLRP's responsibilities and accomplishments at public gatherings and conferences. Press releases are

completed for larger abandoned mine land projects. When ongoing AML reclamation projects attract local news coverage, MLRP personnel take the opportunity to explain the activities and importance of the AML Program by participating in press interviews.

Missouri maintains internal systems to track AML contract obligations and expenditures, public inquiries and project ranking data. Every year, hundreds of contacts are made with the public, other state and federal agencies, industry officials, and landowners of abandoned mine lands.

The MLRP also provides landowners and the public in general the full extent of public participation in its permitting and bond release processes as provided by the state regulations.

# V. Major Accomplishments/Issues/Innovations

# **Abandoned Mine Land Program**

OSM initially awarded the Missouri AML Title IV fiscal year 2005 grant money only for administrative purposes and the State's AML Emergency Program. After the State reassumed full Regulatory Title V primacy on February 1, 2006, OSM awarded Missouri the rest of the Title IV fiscal year 2005 money for a total of \$1,550,000. OSM also awarded Missouri Title IV fiscal year 2006 money in the amount of \$1,550,000 on June 8, 2006. Because the State had to rebuild its Title IV Program, the MLRP concentrated its efforts on designing future projects and did not initiate any AML construction projects until EY 2007. During its first year after reassuming full primacy, the MLRP accomplished the following:

- The Emerald-Coyote Pb/Zn Shaft Project was completed in December 2006 at a cost of \$33,050. Under this project, four Priority I non-coal vertical openings were closed in the Joplin area of Jasper County in southwest Missouri.
- The Baltimore Bottoms Shaft Project was completed in March 2007 at a cost of \$1,500. Under this project, a Priority II coal vertical opening was closed within the U.S. Fish and Wildlife Service's Big Muddy Fish and Wildlife Refuge in Lafayette County.
- During October 2006, MLRP completed the final design for the Rocky Fork AML Reclamation Project in northern Boone County. The Rocky Fork Project will reclaim a 27-acre eroding coal waste pile and a 35-acre coal slurry pond that pose a threat to public safety and to water quality in Rocky Fork Creek. This site is located in the Missouri Department of Conservation's Rocky Fork Lakes Conservation Area, approximately 10 miles north of the City of Columbia (population 84,531). Construction bids were opened on January 25, 2007. On February 13, 2007, the construction contract was awarded to the successful bidder in the amount of \$913,086. MLRP authorized the contractor to proceed with the project on February 27, 2007. The project was on schedule and approximately 50 percent complete at the end of EY 2007.

- During EY 2007, MLRP initiated preliminary site investigation and design activities on the Aurora Pb/Zn Shaft Project (Lawrence County) and three proposed coal AML reclamation projects; Billy Creek (Adair County), West Ken Coal (Jasper County) and Harrisburg (Boone County).
- MLRP received and investigated one abandoned mine land emergency complaint, involving mine subsidence, during EY 2007. The complaint came from a homeowner in the City of Mindenmines in Barton County, an area that was extensively mined for coal. Mine subsidence was ruled out as a cause of the problem based on an on-site visual inspection.

Since the program was first fully approved in 1982, Missouri has reclaimed 73,702 feet of dangerous highwalls, 35 portals, 188 vertical mine openings, approximately 5.9 acres of subsidence, 50 instances of polluted water, 1,598 acres that were contributing to 10.8 miles of clogged streams, 634 acres of dangerous piles and embankments, 217 acres of coal wastes, and 1,382 acres of mine spoils.

# **Regulatory Program**

An accomplishment for the state during this evaluation year was the amount of bond forfeiture reclamation completed. In previous annual reports, OSM expressed concern over the MLRP's lack of progress in reclaiming forfeiture sites. However, during EY 2006, 13 permits covering 2,205 acres were reclaimed. This accomplishment was noted in last year's report and has continued during EY 2007. During this evaluation year, the state achieved release for four permanent program permits on 1,278.70 acres of bond forfeited lands. Several other sites covering several hundred acres were also reclaimed during EY 2007 and are currently being evaluated for vegetation establishment. The MLRP anticipates forfeiture liability will be released on these sites early in EY 2008. The State should continue to reclaim forfeiture sites as soon as possible because forfeiture reclamation liability remains on 17 permanent program permits that cover 1,959 acres.

The MLRP is also credited with successful achievement of final reclamation at one surety reclamation site. On September 26, 1996, the MLRP signed a settlement agreement with Lincoln General Insurance Company to perform reclamation at one abandoned site where Lincoln General was the surety. The site was formerly operated by Universal Coal and Energy Co., Inc. in north central Missouri near the town of Renick. The surety achieved final release of bond and liability through the MLRC on July 27, 2006, through close coordination with the MLRP and after completion of the repairs necessary to achieve this end.

It is also noteworthy to mention that the MLRP nominated Associated Electric Cooperative's BeeVeer mine site for a national reclamation award through the Interstate Mining Compact Commission (IMCC). This mine site achieved final, Phase III release in June 2006 from the MLRC.



The IMCC examined all applications submitted by the various states and voted Associated Electric as winner. Associated Electric received the national award for reclamation excellence during the IMCC's national conference held in Indianapolis, Indiana on May 1, 2007.

One of the requirements for the State to re-assume primacy was for Missouri to replace its "bond pool" bonding method with a "full-cost" bonding method. A final rule replacing the "bond pool" with a "full cost" bonding method was published on July 1, 2006, with an effective date of August 1, 2006. On September 20, 2006, the MLRP issued a new permit covering 350.0 acres at Continental Coal Company Cottonwood mine. This permit was combined with the existing permit at the mine and the combined permit was full-cost bonded. The State followed up with the change to full-cost bonding on February 28, 2007, by combining the two existing permits at Oswego Coal Company Hume No. 1 and requiring the operator to full-cost bond the new combined permit. Both mines that are currently producing coal in Missouri are now full-cost bonded.

The Missouri Program has had five outstanding program amendments for a number of years and the MLRP has been working with MCR personnel to resolve this issue. The State rulemaking manual that contains specific instructions, forms, templates, and guidance for the Missouri rulemaking process is currently being revised by the Secretary of State, and should be ready for use early in EY 2008. After the revised manual is available, Missouri will begin the rulemaking process. The MLRP anticipates the revised rules will become effective by the end of calendar year 2008.

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

To further the concept of reporting end results under Title V of SMCRA, the findings from performance standard and public participation evaluations are being collected for a national perspective in terms of the number and extent of observed off-site impacts, the number and percentage of inspectable units free of off-site impacts, the number of acres that have been mined and reclaimed and which meet the bond release requirements and have been released for the various phases of reclamation, and the effectiveness of customer service provided by the State.

The overall measure of excellence in the AML Program is the degree to which States are successful in achieving reclamation goals. One of the primary goals of AML topical reviews,

referred to as Enhancement and Performance Reviews, is to improve upon this success. These reviews document each State's ability to achieve desired outcomes. Emphasizing outcomes allows OSM to justify when the end result is not being achieved and establish a basis for reaching agreement with (and providing assistance to) a State to improve its program.

Individual topic reports that provide additional details on how the following evaluations and measurements were conducted are available at the MCR office in Alton, Illinois.

# A. Off-site Impacts

Pursuant to Directive REG-8, revised July 28, 1999, OSM annually evaluates and reports on the effectiveness of the MLRP's Regulatory Program in protecting the environment and the public from off-site impacts resulting from coal mining activities and reclamation operations. Off-site impact data are a measurement of the State's on-the-ground success in preventing or minimizing off-site impacts. The goal, however, is for each inspectable unit to have no off-site impacts.

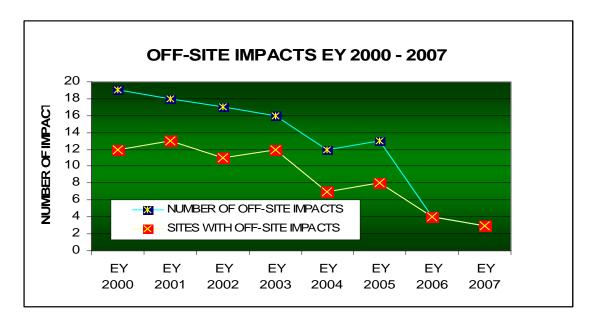
An off-site impact is defined as anything resulting from a surface coal mining and reclamation activity or operation that causes a negative effect on resources (people, land, water, structures). The applicable State program must regulate or control the mining or reclamation activity or result of the activity causing an off-site impact. In addition, the impact on the resource must be substantiated as being related to a mining and reclamation activity and must be outside the area authorized by the permit for conducting mining and reclamation activities.

OSM conducted a total of 18 oversight inspections in Missouri during EY 2007. In addition, OSM reviewed State inspection and enforcement files to identify any off-site impacts observed by the MLRP.

Three off-site impacts were observed at three of the 29 inspectable units, including 14 bond forfeiture and 15 active units, which composed Missouri's inspectable units list at the end of the evaluation year. As shown in Table 4, all of the off-site impacts observed during the evaluation year existed at bond forfeiture sites, and all 15 active units in Missouri, a group including active units, surety reclamation units, and the three units where bond was forfeited but not collected, were free of off-site impacts. In EY 2006, four off-site impacts were observed on four of the 38 inspectable units included on Missouri's inspectable units during the evaluation year. The 89.7 percent of inspectable units free of off-site impacts in EY 2007 represents a slight improvement over EY 2006 when 89.5 percent of the units in Missouri were free of off-site impacts.

All three of the identified off-site impacts were categorized as hydrology impacts. Two of the off-site impacts had moderate effects on water resources while the third off-site impact had a minor effect on the water resource. None of the impacts had major effects. All three of the impacts were identified prior to EY 2007. One fewer off-site impact

existed at the end of EY 2007 than existed at the beginning of the review period.



The objective of this measurement is that the MLRP and OSM direct efforts to decrease the occurrence of off-site impacts. Both the State and OSM are working to achieve this objective, and it is addressed in OSM's PA with the State. Timely forfeiture reclamation will eliminate the off-site impacts observed in EY 2007 and prevent new impacts from occurring.

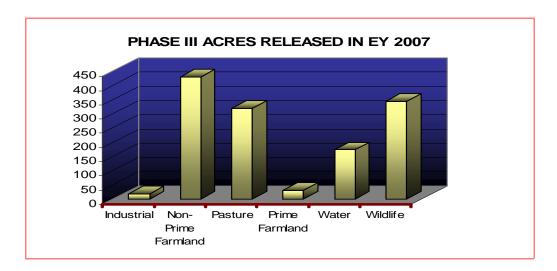
## B. Reclamation Success

During EY 2007, the MLRP released Phase II bond on 35.00 acres and Phase III bond on 1,312.36 acres. The post-mining land uses for the land released were as follows: 429.45 acres of non-prime cropland, 343.65 acres of wildlife habitat, 318.96 acres of pasture, 173.30 acres of water, 29.50 acres of prime farmland, and 17.50 acres of industrial. These releases accounted for removal of two units from Missouri's inspectable units list, including one surety reclamation site. The number of acres in Missouri that achieved Phase III release in EY 2007 was nearly double the 711.00 newly bonded acres for the evaluation period.

OSM conducted six joint bond release inspections at the units where bond was released in EY 2007. Based on field observations and review of documentation contained in bond release request files, OSM determined that all the bond release applicants met the performance standards for each phase of bond being requested for release, and the State appropriately released the bonds as requested.

At the end of EY 2007, 7,701.69 acres remained under Phase III bond in Missouri. The sum of acres that was between Phase I bond release and Phase II bond release at the end

of the evaluation year was 1,724.00 acres and the sum of acres that was between Phase III bond release and Phase III bond release was 2,173.39 acres. These figures are reflected in Table 5 of this report. A small adjustment to the number of bonded acres at the beginning of EY 2007 was made to Table 5 due to a minor error made in Table 5 of the EY 2006 Missouri Annual Report.



There was no re-mining activity in Missouri in EY 2007. Also, none of the mine sites in Missouri have impoundments that qualify as Mine Safety and Health Administration impoundments.

# C. Customer Service

To evaluate the effectiveness of Missouri's customer service, the AFD conducted a review to measure the State's performance in providing public participation in the bond release process. The AFD reviewed the file for the only permit application processed by the MLRP that required public participation since Missouri re-assumed primacy on February 1, 2006. A visit was also made to the county court house of the county where the proposed mining was to occur to determine if a copy of the permit application was made available for public review. Based on evaluation findings, the AFD concluded that the MLRP is providing the public participation in the permitting process as provided by the state regulations.

## VII. OSM Assistance

OSM provides technical assistance and technology support to State AML and Regulatory Programs at the individual State level on project specific efforts, and at the national level in the form of national meeting, forums and national initiatives. The MCR provides direct technical assistance in project and problem investigation, design and analysis, permitting assistance, developing technical guidelines and training and support. The MCR works with the national Technical Innovation and Professional Services (TIPS) Program to deliver state-of-the-art

computer hardware, software, training and systems support for the State AML and Regulatory Programs. MCR also works on the development of regional and national forums, meetings and initiatives to ensure that interests and needs of individual States are considered and included in these events. MCR initiated a regional Technology Transfer Team in 2004 on which each State, including Missouri, has a representative.

During EY 2007, OSM provided Missouri with the following assistance:

**Coldwater Creek Survey** – The MCR's Program Support Division is providing technical assistance to Missouri on establishing survey control for the remediation efforts at the Coldwater Creek site. PSD staff is currently working with coordinate systems, maps, and imagery in order to conduct real time kinematic survey work.

**Rocky Fork AML Project** – PSD is providing technical assistance to Missouri in the reconnaissance, conceptual design, final design, and any site assistance as needed. In July 2006, PSD staff took field measurements and collected water samples from six ponds and split the samples for laboratory and office analysis. PSD then provided the MLRP with recommendations for treating one pond with a combination of lime and organic matter.



Old Bevier AML Wetland Evaluation – The MCR has an ongoing, long-term technical assistance request from the MLRP to develop and evaluate an improved passive treatment system at the Old Bevier site in Macon County. The current system, largely designed by OSM, was constructed in 2000-2001 to treat acid mine drainage having high metal loading and total acidity. Missouri requested the MCR's assistance in repairing this site which was largely neglected for several years due to lack of state funding for MLRP's Coal Program. On April 26, 2007, PSD staff met

with MLRP personnel and the landowner, the Missouri Army National Guard, to review the site and discuss repair and maintenance needs. On June 21, and 22, 2007, a PSD hydrologist assisted the MLRP and the landowner in evaluating operational effectiveness of the passive treatment system. Water samples were collected for analysis from six sites within the treatment system and a new seep located downstream from the Old Bevier discharge point. The MCR will continue to support rehabilitation of the treatment system and, together with the MLRP, plans to update an operation guideline for the State and landowner to use in monitoring and operating the system.

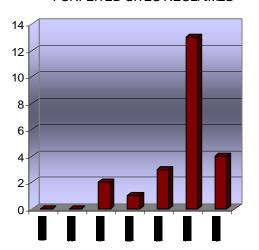
# **VIII.** General Oversight Topic Reviews

The following oversight topics were reviewed during EY 2007. The detailed finding reports are available at the MCR office in Alton, Illinois.

# A. Bond Forfeiture Reclamation

(This topic is included in the EY 2007 Reclamation Success Report) OSM has been concerned about the backlog of reclamation that needs to be accomplished at bond forfeiture sites in Missouri. In order to address this situation, on August 1, 2005, the MLRP established a Coal Bond Forfeiture Release Schedule to prioritize the forfeiture reclamation work planned for several evaluation years. The schedule was very aggressive, outlining work to be performed at 17 sites on over 30 permit areas. Since then, the MLRP's forfeiture reclamation efforts have closely followed the schedule. As a result, the MLRC released reclamation liability on 13 permits covering over 2,000 acres at bond forfeiture sites during EY 2006. The State continued to focus on completing forfeiture reclamation in EY 2007. During this evaluation period, reclamation liability was released on 1,278.68 acres, allowing for removal of four permanent program permits from the inspectable units list. Additional reclamation was conducted on several hundred acres at other forfeited sites and the State anticipates liability will be released on these areas early in EY 2008. The AFD conducted four joint inspections at forfeiture sites where liability was released this year and in all instances found the reclamation completed by the MLRP warranted liability release.

## FORFEITED SITES RECLAIMED



## FORFEITED ACRES RECLAIMED

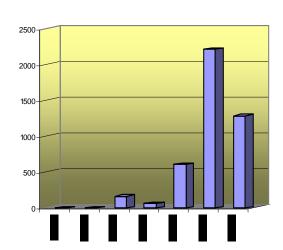


Table 6 of this report exhibits information concerning reclamation at forfeiture sites and surety reclamation sites in EY 2007. Table 6 shows a correction to the number of unreclaimed acres with bonds forfeited and collected that existed as of June 30, 2006. This was necessary because prior annual reports included un-reclaimed interim permit acreage as well as permanent program permit acreage. In addition, a small correction to the acreage being reclaimed by a surety as of June 30, 2006 was also necessary. This was necessary because 10.5 acres of undisturbed land received bond release at a surety site in EY 2006, but the release was not reflected in Table 7 (Table 6 in this year's report) of the EY 2006 Missouri Annual Report.

# **B.** Surety Reclamation

AFD conducted a field evaluation at the only currently active surety reclamation site in Missouri to evaluate MLRP's effectiveness in ensuring "in-lieu-of-forfeiture" surety reclamation is being conducted in accordance with applicable state regulations. In the case reviewed for this evaluation, the surety was required to follow an approved reclamation schedule to reclaim the site according to an approved reclamation plan, monitor ground and surface water according to the schedule in the permit, meet liability time periods for Phase bond release, and remove groundwater wells following complete reclamation. Evaluation findings verified that the MLRP requires "in-lieu-of-forfeiture" surety reclamation to comply with the State's performance standards.

# C. Abandoned Mine Land Inventory System Certification and Data Accuracy

AFD conducted a "walk through" with the AML staff of the State's current procedures to ensure accuracy of AMLIS data and also selected a sample of hard copy problem area descriptions (PAD) and compared all fields available on the PADs with information input to the AMLIS. OSM concluded that, in EY 2007, the MLRP increased and trained key AML staff and amended and improved the procedures used to enter data into AMLIS. The AML Program's procedures and processes are fully effective and successful in ensuring accuracy of data entered into AMLIS.

# D. AML Post-Construction Emergency Projects

The purpose of this review was to evaluate the end results of emergency reclamation projects and determine the root causes of any problems identified by the review. Six projects completed during the last seven years were selected for field review. The field evaluation found that none of the completed projects required additional maintenance work. OSM concluded that design goals are being achieved and emergency projects are being completed in a cost-effective manner.

# E. AML Reclamation Project Unplanned Maintenance

The purpose of this review was to evaluate unanticipated reclamation maintenance as a measure of the Missouri AML Program's success in achieving the goal of self-sustaining reclamation in a timely, cost effective manner. OSM concluded that the frequency of unscheduled project maintenance in Missouri does not reflect an AML Program deficiency. Unplanned maintenance was designed and implemented in a timely, cost-effective manner in compliance with all applicable laws and regulations.

# **Appendix A:** Tabular Summaries of Data Pertaining to Mining, Reclamation, and Program Administration

These tables present data pertinent to mining operations, State and Federal regulatory activities, and the reclamation of abandoned mines within Missouri. They also summarize funding provided by OSM and Missouri staffing levels. Unless otherwise specified, the reporting period for the data contained in all tables is July 1, 2006, to June 30, 2007. Additional data used by OSM in its evaluation of Missouri's performance is available for review in the evaluation files maintained by the MCR office in Alton, Illinois.

When OSM's Directive REG-8, Oversight of State Programs, was revised in December 2006, the reporting period for coal production on Table 1 was changed from a calendar year basis to an evaluation year basis. The change was effective for the 2007 evaluation year. In addition to coal production figures for the current year, Table 1 also contains the coal production figures from annual evaluation reports for the two most recent prior years. Therefore, for the 2007 annual evaluation report, coal production figures are provided for 2005, 2006 and 2007. In order to ensure that coal production for these three years are directly comparable, the calendar year production figures from the 2005 and 2006 annual evaluation reports were recalculated on an evaluation year basis (July 1 – June 30). This should be noted when attempting to compare coal production figures from annual evaluation reports originating both before and after the December 2006 revision to the reporting period.

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

Period	Surface Mines	Underground Mines	Total	
Coal production <sup>A</sup> for entire State:				
Evaluation Year				
EY 2005	0.540	0.000	0.540	
EY 2006	0.591	0.000	0.591	
EY 2007	0.240	0.000	0.240	

<sup>^</sup> 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 **Number and Status of Permits** Permitted Acreage<sup>B</sup> Inactive Phase II bond Coal mines and related facilities Nbr.of (100's of acres) Active or Abandoned Totals Insp. temporarily inactive Units<sup>A</sup> release Federal Lands Lands Lands PP PP PΡ PP Total LANDS FOR WHICH THE STATE IS THE REGULATORY AUTHORITY Surface 0.0 96.6 108. mines Undergroun mines 0.0 0.0 0.0 0.0 Other 0 0 0.0 0.0 0.0 0.0 0.0 facilities 41 Total 17 11 0.0 0.0 11.8 96.6 108.4 52 Total number of permits: 1.79 Average number of permits per inspectable unit (excluding exploration sites): Average number of acres per inspectable unit (excluding exploration sites): 373.90 Number of exploration permits on State and private lands: On Federal lands<sup>C</sup>: 0 0 0 On Federal lands<sup>C</sup>: Number of exploration notices on State and private lands:

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.

# State Permitting Activity As of June 30, 2007

Type of	Surface mines			Underground mines			Other facilities				Totals		
Application	App. Rec.	lesued	Acres	App. Rec.	lasued	Acres A	App. Rec.	lssued	Acres	App. Rec.	Issued	Acres	
New Permits	0	1	350	0	0	0	0	0	0	0	1	350	
Renewals	0	0		0	0		0	0		0	0		
Transfers, sales, and assignments of permit rights	0	0		0	0		0	0		0	0		
Small operator assistance	0	0		0	0		0	0		0	0		
Exploration permits										0	0		
Exploration notices											0		
Revisions (exclusive of incidential boundary revisions)		8			0			0			8		
Revisions (adding acreage but are not incidental boundary revisions)	0	0	0	0	0	0	0	0	0	0	o	0	
Incidental boundary revisions	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	0	9	350	0	0	0	0	0	0	0	9	350	

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

 $<sup>^{\</sup>mbox{\ensuremath{\Lambda}}}$  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.

# OFF-SITE IMPACTS (excluding bond forfeiture sites)

RESOURCES AFFECTED				People Land			Water			Structures				
DEG	REE OF IMPAC	CT	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF	Blasting	0	0	0	0	0	0	0	0	0	0	0	0	0
AND TOTAL	Land Stability	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hydrology	0	0	0	0	0	0	0	0	0	0	0	0	0
	Encroachment	0	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	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Total number of inspectable units (excluding bond forfeiture sites): 15
Inspectable units free of off-site impacts: 15
Inspectable units with off-site impacts: 0

# OFF-SITE IMPACTS ON BOND FORFEITURE SITES

RESO	OURCES AFFECTED People			Land			Water			Structures				
DEG	REE OF IMPAC	CT	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF	Blasting	0	0	0	0	0	0	0	0	0	0	0	0	0
IMPACT AND	Land Stability	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	Hydrology	3	0	0	0	1	0	0	0	2	0	0	0	0
	Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0
OF EACH	Other	0	0	0	0	0	0	0	0	0	0	0	0	0
TYPE	Total	3	0	0	0	1	0	0	0	2	0	0	0	0

Total number of inspectable units (only bond forfeiture sites): 14
Inspectable units free of off-site impacts: 11
Inspectable units with off-site impacts: 3

TABLE 5									
Annual State Mining and Reclamation Results									
Bond		ring this Evaluation Year							
release phase	Applicable performance standard	erformance standard Total acreage released under							
Α	В	С	D	E					
Phase I	Approximate original contour restored     Topsoil or approved alternative replaced	0							
Phase II	- Surface stability - Establishment of vegetation	35	0						
Phase III	Post-mining land use/productivity restored     Successful permanent vegetation     Groundwater recharge, quality and quantity restored     Surface water quality and quantity restored	1,312	0	35					
	Bonded Acreage A	Acres during this evaluation year							
Total nu	mber of new acres bonded during this evaluation year	711							
Number	of acres bonded during this evaluation year that are considered remining, if	avallable 0							
Number	of acres where bond was forfelled during this evaluation year	0							
	Bonded Acreage Status	Cumulative Acres							
Total nu	mber of acres bonded as of the end of last review period (June 30, 2006) <sup>B</sup>	8,305							
Total nu	mber of acres bonded as of the end of this review period (June 30, 2007) <sup>B</sup>	7,702							
	ocres bonded that are between Phase I bond release and Phase II bond as of June 30, 2007 B	1,724							
Sum of a	acres bonded that are between Phase II bond release and Phase III bond as of June 30, 2007 <sup>B</sup>		2,17	3					
	Disturbed Acreage		Acres						
Number	of Acres Disturbed during this evaluation year			0					
	of Acres Disturbed at the end of the on year (cumulative)			0					
ь.	ed acreage is considered to approximate and represent the number of acres disturbed t ed acres in this category are those that have not received a Phase III or other final boro								

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.

# 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)	21		4,650
Sites with bonds forfeited and collected during Evaluation Year 2007 current evaluation year)	0	\$ 0	0
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2007 (current evaluation year)	0		0
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2007 (current evaluation year)	4		1,279
Sites with bonds forfeited and collected that were unreclaimed as of June 30, 2007 (end of current evaluation year) <sup>A</sup>	17		1,959
Sites with bonds forfeited but uncollected as of June 30, 2007 (end of current evaluation year)	3		1,213
Surety/Other Reclamation (In Lieu of Forfeiture)			
Sites being reclaimed by surety/other party as of June 30, 2006 (end of previous evauation year) <sup>B</sup>	2		417
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) <sup>C</sup>	1		35
Sites being reclaimed by surety/other party as of June 30, 2007 (current evaluation year) <sup>B</sup>	1		371

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

<sup>&</sup>lt;sup>C</sup> This number also is reported in Table 5 as Phase III bond release has been granted on these sites

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

Function	EY 2007
Regulatory Program	
Permit Review	2.10
Inspection	2.65
Other (administrative, fiscal, personnel, etc.)	1.55
Regulatory Program Total	6.30
AML Program Total	8.30
Total	14.60

# Funds Granted To Missouri BY OSM

(During the Current Evaluation Year)
(Actual Dollars, Rounded to the Nearest Dollar)

Type of Funding	Durin	unds Awarded g Current ation Year	Federal Funding as a Percentage of Total Program Costs
Regulatory Funding			
Administration and Enforcement Grant	\$	245,767	50.00 %
Other Regulatory Funding, if applicable	\$	0	0.00 %
Subtotal	\$	245,767	
Small Operator Assistance Program	\$	0	100 %
Abandoned Mine Land Reclamation Funding A	\$ 1	,550,000	100 %
Totals	\$ 1	,795,767	

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							
Number of Inspections Conducted							
Status	Complete	Partial					
Active <sup>A</sup>	42	79					
Inactive A	14	10					
Abandoned <sup>A</sup>	14	0					
Total	Total 70 89						
Exploration	0	0					
A Use terms as defined	A Use terms as defined by the approved State program.						

# State Enforcement Activity

# **During Current Evaluation Year**

Type of Enforcement Action		Number of Violations
Notice of Violation	0	0
Failure-to-Abate Cessation Order	0	0
Imminent Harm Cessation Order	0	0
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 Optional

# Post Mining Land Use Acreage (after Phase III bond release)

Land Use	Acreage Released during this Evaluation Year
Cropland	429
Pasture/Hayland	319
Grazing Land	0
Forest	0
Residential	0
Fish & Wildlife Habitat	344
Developed Water Resources	0
Public Utilities	0
Industrial/Commercial	18
Recreation	0
Other (please specify): Prime Farmland	29
Other (please specify): Water	173
Other (please specify):	0
Total	1,312

# Appendix B: State Comments on the Report and OSM's Response

From: Larry Coen [mailto:larry.coen@dnr.mo.gov]

Sent: Friday, August 03, 2007 5:39 PM

To: Andrew Gilmore

Cc: Beverly B. Harmless; Perry Pursell; Mike Larsen; Clint Bishop

Subject: Missouri EY 2007 Draft Annual Report

Andy, everyone here is fine with the annual report, as amended. We can call it final if that works for you.

Thanks.

Larry Coen, RG, Staff Director MDNR Land Reclamation Commission

Phone: 573-751-4041

Email: larry.coen@dnr.mo.gov

# **Disposition of Comments:**

No changes were required.