



EY 2012

**Annual
Evaluation
Report**



COMMONWEALTH OF KENTUCKY

SMCRA

Lexington Field Office
Office of Surface Mining
Reclamation & Enforcement



Office of Surface Mining Reclamation and Enforcement

Thirtieth Annual Evaluation Summary Report

For the

**Regulatory and Abandoned Mine Land Reclamation
Programs**

Administered

By the

Commonwealth of Kentucky

For

Evaluation Year 2012

(July 1, 2011 through June 30, 2012)

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Executive Summary

Kentucky Regulatory Program

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) provides authority to the Office of Surface Mining Reclamation and Enforcement (OSM) to oversee the administration of the Kentucky Department for Natural Resources (KYDNR) approved regulatory program. OSM's Evaluation Year (EY) 2012 Annual Evaluation Report covers the period July 1, 2011 to June 30, 2012. On January 31, 2011, the OSM Director signed *Directive REG-8* that established revised policies, procedures, and responsibility for conducting oversight of the State regulatory program. The revised directive provides the outline for this Annual Evaluation Report.

An Annual Performance Agreement was jointly developed by OSM and KYDNR. OSM solicited input into the draft Agreement by providing notices to interested citizens, industry, and environmental groups requesting suggestions for potential oversight evaluation topics on March 1, 2011. The EY 2012 Annual Performance Agreement was signed by OSM and KYDNR on June 8, 2011, and can be seen online by visiting the OSM Appalachian Region website at: <http://www.arcc.osmre.gov/FOs/LFO/KY/kyoversight.shtm>.

Accomplishments

During EY 2012, KYDNR continued to make significant improvements to its approved Regulatory program. A summary of those accomplishments are listed below and further discussed in the Annual Evaluation Report.

Cumulative Hydrological Impact Assessments (CHIAs)

One of the areas where KYDNR has improved significantly is in the area of Cumulative Hydrologic Impact Assessments or CHIAs. These watershed documents are written to assess the cumulative impacts of mining on the surface and ground water systems present in the defined impact area. The CHIAs were the focus of a Notice of Intent to Sue and required immediate attention. The process started in earnest in 2010 and continues today on multiple fronts. The KYDNR is gaining improvements through the use of a student interns for data entry and evaluation, and through water quality monitoring by KYDNR at trend stations.

Student Interns: KYDNR has significantly advanced their CHIA efforts through their data entry and evaluation approach using student interns, and by the establishment of CHIA trend stations. Through July 1, 2012, the interns had entered more than 114,634 surface and ground water monitoring reports representing 190 watersheds and 93,000 Discharge Monitoring reports into SMIS. KYDNR is now reviewing data from past (reclaimed), present, and anticipated mining to improve the accuracy of their assessment process for CHIA. OSM has provided nearly \$189,000 to KYDNR for student interns through the Youth Initiative.

Pigeonroost Fork Watershed Evaluation: In July 2012, OSM approved a request from KYDNR for \$15,000 to conduct a CHIA special study to determine the cumulative effects of past and present coal mining operations in one watershed. Pigeon-roost Fork, a HUC-12 watershed, not only contains several active operations and many (bond) released permits but also unmined areas in the headwaters, a relatively uncommon occurrence in the eastern Kentucky coalfield. The evaluation of this watershed will assist in the assessment methods used in the CHIA process.

Trend Stations

Cumulative hydrologic impacts are the aggregate effects on hydrologic parameter values at a particular location in a specific watershed, caused by existing and anticipated mining and other activities related to residential development, roads, agricultural, logging, and oil and gas well operations. This particular location, also known as a trend station, would provide a measure of cumulative effects of these activities as well as multiple mining operations. As a result of the establishment of trend stations through OSM funding, KYDNR will also be able to incorporate data obtained from recently established trend stations located at selected HUC-12 watersheds, based on mining activity, within the coal mining counties. To best establish the water quality and quantity within the cumulative impact area, all available historic hydrologic data needed to be compiled, reviewed, and evaluated. In the last two years this data review process was also supplemented by KYDNR trend station data collected at the mouth of the HUC-12 watersheds. Including 2012, OSM has provided \$470,048 to KYDNR for the establishment and quarterly sampling of the trend stations.

Geographic Information System (GIS) and GeoMine

GIS: Over the last evaluation year KYDNR continues to strengthen Kentucky's GIS program. KYDNR is hiring more people to assist with the workload. A full-time GIS position was added in EY 2012, bringing the total to four full-time staff currently in place. Through various funding sources, the GIS staff also includes five interns. The KYDNR GIS team has continued to make key advancements to Kentucky's GIS efforts. GIS continues to serve the KYDNR mining divisions with a variety of applications, data, and custom maps. Reports which once took several hours can now be completed in a matter of minutes. This contribution has greatly improved productivity within the Division of Mine Permits (DMP) and significantly increased the amount of time the permit reviewer has to conduct a CHIA analysis of the watershed data.

GeoMine: Currently, KYDNR is actively participating in the GeoMine Pilot Project, an OSM concept of an internet-accessible GIS database of coal mines in the United States. The geographic scope of the pilot project is limited to the SMCRA primacy states of Kentucky, Virginia, West Virginia, and the Federal-administered Tennessee program. All of the states involved in this project will have to prepare and sort its data in order to display its coal mining data in the same format, and all in one location online. Presently, OSM has provided \$408,160 in funding for the GeoMine project to allow the state to purchase equipment and to hire five student interns to digitize mine boundaries. These interns have completed digitizing the 1,185 permanent program permits and 41 bond forfeiture permits.

The GIS section reports that they have scanned and geo-referenced a total of 37,735 permitted fills and 18,699 permitted boundaries. The GIS section has also been working on the Abandoned Mined Land (AML) project inventory. The interns worked in the AML office to extract Project Unit (PU) files and scan individual Project Area Descriptions (PAD) maps, and the accompanying data within each PU for each of the 910 PADs.

Appalachian Reforestation Initiative (ARRI)

KYDNR continues to take a strong leadership role in the Appalachian Regional Reforestation Initiative (ARRI). KYDNR has further expanded their roles with ARRI by recently partnering with Green Forests Work (GFW) to convert abandoned grassland reclamation of legacy (pre-law) surface mined land to forests. During EY 2012, KYDNR partnered with GFW to assist over 749 volunteers from various constituencies in planting 44,355 trees over 46.15 acres. OSM participated in a Kentucky Arbor Day event with more than 110 students and their teachers from two middle schools by planting over 950 high value hardwood seedlings on a surface mine.

Interagency Fill Meetings

During the EY, the Lexington Field Office (LFO) continued to host quarterly interagency fill meetings to discuss coordination issues related to permitting excess spoil fills including SMCRA and Clean Water Act (CWA). A working group, established in January 2010, completed their primary task by developing an interagency coordination coal mine permitting workflow product for Kentucky. On June 20, 2012, EPA, COE, USFWS, DOW, KYDNR, and OSM signed a Local Interagency Coordination Agreement (LICA) implementing the “*Kentucky Pre-Application Coordination Process for Coal Facilities.*” This was a major milestone for interagency coordination between the state and federal partners. Kentucky was the first primacy state to sign a coordination agreement.

Fill Placement Optimization Process (FPOP) Workshop

A Fill Placement Optimization Process (FPOP) workshop was hosted by EPA’s Region IV office in Atlanta on November 14-15, 2011, to discuss ways in which FPOP might be amended to enhance the regulatory protection of jurisdictional aquatic resources in eastern Kentucky. It standardizes initial spoil volume calculations for mining engineers, thereby allowing for a consistent technical review of mine permit applications. FPOP works within the AOC requirements of SMCRA to encourage the maximum use of practicable off-site spoil disposal locations before seeking the most efficient placement of fill material into valleys where jurisdictional aquatic resources may lie.

AML Program

AML Emergency Program: Since OSM transitioned the responsibility for conducting AML emergencies to the States, Kentucky has elected not to include an AML emergency program as part of their approved AML plan but investigates and funds emergency projects as a high

priority projects under their non-emergency AML program. OSM continues to work with Kentucky to assume an AML emergency reclamation program as part of their approved AML plan.

OSM Oversight Inspection of AML Projects: OSM completed 229 oversight inspections of Kentucky's Division of Abandoned Mine Land (KYDAML) program during EY 2012 and found that the state continues to be successful in achieving lasting and effective reclamation of previously mined lands that eliminates hazards to the public and restores land to beneficial uses. OSM's inspections show that the KYDAML manages their program in a cost effective and efficient manner. The reviewed projects complied with applicable laws and regulations; are well designed and constructed using the best technology available; are completed with minimal disturbance to the environment; and are well monitored to ensure projects meet contract specifications, project objectives, and program goals.

AML Enhancement Projects: Kentucky has utilized the AML enhancement rule provisions in SMCRA since 1999 to accomplish reclamation at a much reduced cost to the AML Fund. Kentucky completed no projects during this evaluation year. This is due to a setback at the nursery where KYDAML acquired trees for reclamation. The nursery was destroyed this year by a tornado. The projects that were scheduled to be completed this year will be completed with next year's projects, culminating in a total of seven projects. During the EY, Kentucky was authorized to proceed with eight new enhancement projects that are estimated to save the AML Fund approximately \$325,450.

AML Water Supply Projects: In EY 2012, Kentucky requested and received authorization for nine new water supply projects that propose to upgrade and/or extend existing water supply facilities to provide safe domestic water supplies for approximately 1,592 new residential customers. These projects will include the installation of approximately 506,122 linear feet of new water line with associated features of pump stations, water tanks, and pressure relief valves at an estimated cost of \$13,085,372.

National Measurement Elements

Permit Actions: Kentucky is the third largest coal-producing state in the nation with an annual production of over 111 million short tons during EY 2012. Kentucky currently inspects 1,850 coal mining permits of which 880 are surface mining permits and 629 are underground mining permits. There has been an overall decrease by two-thirds in inspectable units over the past 25 years. During recent EYs, surface mines have increased in size. The current average size of a surface mine is approximately 582 acres. Underground mines currently average 2,260 acres in size and include permitted acreage overlying the underground works known as shadow area.

KYDNR Mine Inspections: During EY 2012, KYDNR inspectors conducted 22,488 inspections on 1,850 mine permits. OSM analyzed off-site impact data from KYDNR's inspections and the violations cited. KYDNR issued 407 enforcement actions that resulted in 549 measurable off-site impacts on 332 permits. Eighty-two (82) percent of minesites inspected by KYDNR were free of off-site impacts compared to 80 percent in EY 2011.

Bond Release: KYDNR reported that bond releases were granted on 13,592 acres for Phase I reclamation, 4,879 acres for Phase II reclamation, and 12,648 acres for Phase III reclamation. OSM jointly reviewed a sample of these minesites with KYDNR and conducted 41 Phase I joint bond release inspections and 23 Phase III joint bond releases inspections. OSM found that KYDNR is meeting the requirements of its bond release program on permanent program permits.

OSM Mine Inspections: During EY 2012, LFO conducted 576 oversight-related inspections: 40 of these were comprehensive independent inspections conducted jointly by LFO inspectors; 384 were comprehensive random sample inspections; 23 were Phase III bond release inspections conducted jointly with KYDNR personnel; 70 field inspections resulting from special studies outlined in the EY 2012 Performance Agreement; and the remaining 59 inspections were: flyrock investigations (4), acid mine drainage (9), citizen complaint inspections (19) and other oversight or State assisted inspections (27). This represents an increase of six (6) percent over EY 2011, an increase of 22 percent over EY 2010, and 77 percent over the number of oversight inspections in EY 2009.

Customer Service/ Stakeholder Outreach

Citizen Complaints: The LFO continues to gather data annually on citizen complaints. Statistics show that over the past 20 years, the number of citizen complaints received each year by KYDNR has reduced by one-half. A total of 563 citizen complaints were received in EY 2012. At the end of the EY 2012, there were 103 citizen complaints still pending. OSM issued 12 Ten-Day-Notices (TDN) during EY 2012 based on citizen complaints. This was similar to the 13 citizen complaints received in EY 2011.

ARRI Events: OSM participated in a Kentucky Arbor Day event with two middle schools at a surface mine site and with Boy Scouts at an ARRI Reforestation Day event at Fishtrap Lake.

Environmental Impact Statement: An Environmental Impact Statement (EIS) is being developed for the stream protection rule. The new rule would better protect streams from the adverse effects of coal mining. OSM is currently reviewing the draft Environmental Impact Statement and preliminary draft rule language. There is not a scheduled date for publishing in the Federal Register.

Office of Surface Mining and Bureau of Land Management (BLM) Consolidation: On January 31, 2012, OSM and BLM held a meeting in Lexington, Kentucky to solicit stakeholder input on the proposed consolidation of OSM and BLM. In attendance were members of the environmental community, coal industry, and state regulatory personnel.

CHIA Outreach: On March 31, 2012, OSM and KYDNR conducted an outreach meeting with Tom Fitzgerald, Kentucky Resources Council. The purpose was to provide an update on the progress of KYDNR's CHIA program. The improved CHIA process was also

demonstrated at the interagency fill meeting and the OSM/states meeting in Charleston, West Virginia.

Annual Performance Agreement: Prior to the beginning of each EY, LFO conducts outreach to all citizen and industry groups to solicit suggestions on oversight topics for the upcoming year. These suggestions are considered when OSM determines the focus and oversight resources necessary to review the State regulatory and AML programs. This information is also used by LFO when negotiating the annual performance agreement with KYDNR. Copies of the annual performance agreements can be found on the OSM Appalachian Region website at <http://www.arcc.osmre.gov/FOs/LFO/KY/kyoversight.shtm>. LFO did not receive any comments on the EY 2013 Performance Agreement.

Bonding Program Emergency Regulations: In response to the May 1, 2012, 30 CFR 733 letter, Kentucky's EEC filed emergency regulations regarding bonding with the Kentucky Legislative Research Commission on May 4, 2012. Under Kentucky law, the emergency regulations took effect on that date and will remain in effect for 180 days. During that time, identical proposed revisions will undergo the normal review process in Kentucky for changes to administrative regulations. The bonding regulations increase base bond amounts, increase the minimum bond, increase bond amounts for embankment sediment structures, increase supplemental assurance, and will require KYDNR to evaluate the bond amounts every two years.

House Bill (HB) 385 – Procedure for Changes to Bonds: On May 10, 2011, KYDNR submitted HB 385 to OSM for review. HB 385 amends KRS 350.060 to require that any determination by the EEC to change a bond requirement or bond amount currently in use will result in a new administrative regulation that includes all bond requirements including the bond amount, proscribe bond amounts from being instituted as policy and require after the effect date of the Act an administrative regulation that fails to include bond amount protocols to be declared automatically deficient. The HB was signed by the Governor on March 17, 2011, and went into immediate effect. OSM published the proposed rule in the Federal Register on August 15, 2011.

Program Amendment for Electronic Enforcement Documents: On January 30, 2012, Kentucky submitted a proposed program amendment containing administrative regulations regarding electronic notification of enforcement documents. These proposed changes are intended to be cost saving measures that are as effective as those required under SMCRA and the Federal regulations. On June 12, 2012, OSM published the proposed rule for comment on these regulation changes.

Notice of Intent to Sue: During the EY, KYDNR, OSM and the coal industry continued to receive Notice of intent to sue (NOIs). Five new NOIs were filed during the EY. Several environmental groups joined forces to file the five NOIs. The environmental groups are Sierra Club, Kentuckians for the Commonwealth, Appalachian Voices, and Appalachian Mountain Advocates. One NOI was filed against KYDNR permitting decisions; three NOIs were filed against coal industry companies relating to Clean Water Act (CWA) and SMCRA hydrologic issues; and one NOI was filed against a coal company regarding a

specific flooding event in July 2010. Four NOIs were pending resolution at the close of the EY.

National Priority Review Topics

Two previously conducted National Priority Topic Reviews were completed in EY 2012; Approximate Original Contour and Adequacy of Kentucky Bond Amounts.

Approximate Original Contour: The AOC National Study found the need for improvements to both permitting and field verification of AOC. KYDNR and LFO agreed to an Action Plan to correct the issue. KYDNR developed Reclamation Advisory Memorandum (RAM) #145 that minimizes spoil in excess spoil fills and further enhances AOC determinations and verification. OSM completed a review that included oversight inspections in EY 2012 and verified that the remaining item in the AOC Action plan was satisfactorily completed.

Adequacy of Kentucky Bond Amounts: This study found reclamation performance bonds in Kentucky are not always sufficient to complete reclamation required in an approved permit. KYDNR and OSM signed an Action Plan detailing the steps necessary for correcting identified bond calculation deficiencies. OSM and KYDNR continue to work to resolve the bond deficiencies, to re-evaluate their bonding computation procedures, and to increase bond amounts. Please see outstanding issues for a discussion of the bonding adequacy issue.

General Oversight Topic Reviews

Bond Forfeitures: Bond forfeitures have been studied on an annual basis by OSM since EY 2007. Prior studies have shown an increasing number of bond forfeitures resulting with insufficient bond. LFO and KYDNR agreed in the Performance Agreement to study permanent program bond forfeitures occurring during EY 2012. In June 2012, LFO completed this study which found that twelve of the fifteen permits did not have sufficient bond to complete reclamation. Since EY 2008, OSM has reviewed 81 bond forfeitures with 63 permits having performance bonds insufficient to complete reclamation to the standards in the approved permit. These documented deficiencies and findings in the National Priority Review study on Bonding Adequacy confirm that performance bonds in Kentucky are not always sufficient to complete reclamation required in the approved permit.

Oversight Inspections: OSM and KYDNR conducted 384 joint comprehensive random inspections and 40 independent comprehensive inspections, selecting permits currently in an active or reclamation active status for review during EY 2012. Enforcement data, off-site impacts, and compliance statistics were collected on each permit inspected. For EY 2012, OSM found that 298 of the 424 (70 percent) of the permits issued in Kentucky were in full compliance with all performance standard categories. This is the same as EY 2011 which also showed 70 percent were in compliance. The level of industry compliance remains a serious issue. During the EY, KYDNR issued 1,331 non-compliances and cited 2,716 performance standards. This is quite similar to the EY 2011 findings in which KYDNR issued 1,244 non-compliances and cited 2,722 performance standards.

Inspection Frequency Summary: Inspection frequency is a regulatory requirement to conduct inspections on the Kentucky coal mines to meet a certain number, or frequency, during the EY. In the past three OSM evaluation years, OSM reported a significant drop in meeting inspection frequency. KYDNR had a historic rate of over 98 percent of the coal mine meeting inspection frequency. The drop from 98 percent to 83 percent in EY 2009 was a predictable result of the significant budget shortfall that continues to impact KYDNR's ability to backfill and maintain the program vacancies. A large number of vacancies resulted when the state changed the retirement system. A number of the most experienced inspectors retired and were replaced by less experienced ones resulting in less inspections. For EY 2012, KYDNR met inspection frequency on 88 percent of Kentucky coal mines. This recovery is attributed to the reduction in active coal mining, increased inspection staff and supervisors being assigned an inspection workload, and emphasis by KYDNR management on the need to meet inspection frequency.

Grants: During the EY, OSM awarded nearly \$58 million to Kentucky to fund the Title IV AML and Title V Administration and Enforcement (A&E) Regulatory Programs. The grant cycle for AML begins on July 1st, and the A&E grant cycle begins on September 1st of each calendar year (CY). Aside from the A&E grant and AML grant, OSM awarded funds for Cooperative Agreements including; \$216,160 to support OSM's national initiative Geo Mine Coal Mining Digital Data project and \$151,048 for partial one-time funding of the CHIA trend station lab analysis.

Enhanced Permit Coordination Special Study: One KYDNR surface mine operation caused significant off-site impacts as a result of the failure of excess spoil material placed above the outcrop areas. The volume of the excess spoil overstacked on the backfilled areas was not permitted by KYDNR and was unlawfully done by the company. The company had pursued a COE permit for the disposal of the spoil but had not received the necessary approvals to dispose of their material. The overstacked spoil placement became unstable during wet conditions and resulted in numerous slides that threatened several residences in the area. Based on this failure, LFO conducted a review and inspection of a total of 44 permits which had applied for a CWA 404 permit from the COE. Better than half (52 percent) of the operators had not disturbed the area where the proposed COE permit was located. The study also found that approximately 73 percent of the requested applications for COE permits were withdrawn by the applicant.

Other Studies: Other studies conducted by OSM and not specifically mentioned at this point during the EY include: Acid Mine Drainage Active Inventory Sites, Off-Site Impacts, and Fill Inventory, and Cultural and Historic Resources.

Outstanding Issues

Adequacy of Bond Amounts: OSM oversight and programmatic reviews have found that performance bonds in Kentucky are not always sufficient to complete the reclamation required in the approved permit. OSM received a response from KYDNR on August 1, 2011, which included a proposal to review existing permits. A meeting between OSM and

KYDNR was held on August 9, 2011, and an agreement was reached to form a joint OSM/KYDNR bond review team to initiate a review and validation of the proposed bonding protocol. The initial team meeting was held on August 16, 2011.

On January 17, 2012, OSM responded to KYDNR by letter which included the Bond Team Report. OSM found that, while the revised protocols were an improvement over the current method of bond calculations, they did not result in the calculation of performance bonds sufficient to complete reclamation to permanent program and permit standards should forfeiture occur. On February 9, 2012, Kentucky responded by proposing a path forward which included the preparation of a regulatory package that incorporates revisions to the current bonding protocol which will have the effect of raising the performance bonds required on mining operations.

On May 1, 2012, in accordance with 30 CFR 733.12(b), OSM notified the Kentucky EEC that there was reason to believe that Kentucky is not implementing, administering, enforcing, and maintaining the reclamation bond provisions of its approved program in a manner that ensured that the amount of the performance bond for each surface coal mining and reclamation operation is “sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority in the event of forfeiture,” as required by section 509(a) of SMCRA.

The process provides Kentucky with an opportunity to correct its bonding program deficiencies. On May 4, 2012, emergency regulations were signed by Governor Beshear. Kentucky is promulgating these emergency regulations effective immediately in order to take a proactive step to avoid possible loss of part of the Kentucky Program and loss of funding for the AML program. On June 4, 2012, the Secretary, of the Kentucky EEC, responded on behalf of the KYDNR to OSM on the 733 letter. In the letter, the Secretary identified Kentucky’s plan for corrective action and requested an informal conference with OSM to discuss the plans for resolution and proposed timetable for implementation. On August 8, 2012, OSM and KYDNR completed an “Informal Conference” in Lexington, Kentucky. In that meeting, KYDNR outlined the progress made to date and presented a timetable for completing actions necessary to resolve the “733 action” against Kentucky.

Budget and Staffing: Even though the mining program was spared from the latest State agency cuts, KYDNR still reduced staffing levels during the EY. At the end of the EY, DMP had a budgeted cap of 98 employees with three vacancies, the Division of Mine Reclamation and Enforcement (DMRE) had no vacancies in their budgeted cap of 167 positions, and the KYDAML had 4 vacancies out of a budgeted cap of 98. DMRE’s budget cap was lowered by 13 positions which eliminated their vacancies due to a reduced budget.

Lack of Matching Funds: The inability to match Federal funds continues to be an issue for KYDNR. At the end of EY 2012, KYDNR de-obligated \$650,000 of the FY 2011 Administrative and Enforcement (A&E) grant of \$12,431,861. The EY \$12,431,861 grant already represents a reduction of \$1,870,000 from the previous FY 2011 grant because of KYDNR’s inability to match OSM A&E grant awards during FY 2008 through FY 2010. Since the FY 2008 Administrative and Enforcement grant, KYDNR de-obligated over 5.5

million dollars. The FY 2011 A&E approved staff level funding of 301 full-time positions for KYDNR. KYDNR strong and effective emphasis on maintaining staffing levels has come at costs to other aspects of the program. KYDNR was not able to purchase any new vehicles and reductions were mandated in contracts, travel, and hardware procurement. This, coupled with six furlough days mandated by the State government, has significantly impacted KYDNR's ability to match OSM funds and ultimately achieve levels of performance demonstrated during previous years.

Flyrock from Blasting: Flyrock events continue to decrease, with three flyrock occurrences during this EY. This continues the declining trend from five (5) in EY 2011, ten (10) in EY 2010, and nineteen (19) in EY 2009. One of the events involved flyrock that caused property damage to a residential structure. Fortunately, no injuries occurred as a result of this flyrock event. KYDNR and OSM recognize flyrock as the most troublesome and potentially dangerous of all off-site impacts in the State and will continue to vigorously enforce blasting requirements, conduct training for inspectors, and participate in joint studies with the goal being to reduce the blasting effects on citizens and property. KYDNR is working with University of Kentucky (UK) on a Flyrock Prevention Study. During EY 2013, OSM and KYDNR will be participating in a joint special study on blasting at five (5) active mine sites- one in each of the KYDNR regions.

Industry Compliance: Industry compliance remained the same as EY 2011 at 70 percent. However, this continues the significant decline of compliance noticed in the last three EYs. The last time that industry compliance was this low was 1990. Meetings have been held with the Kentucky Coal Association to initiate discussions on ways to improve industry compliance.

Grants and Technical Assistance

OSM provides financial and technical assistance to Kentucky in several ways.

Training for KYDNR: OSM supplements internal KYDNR training with the National Technical Training Program (NTTP) and Technical Innovation and Professional Services (TIPS) training programs and software licensing.

Additional Funds for KYDNR: OSM awarded funds for Cooperative Agreements including; \$216,160 and \$192,000 to support OSM's national initiative GeoMine Coal Mining Digital Data project. In addition, \$151,048 and \$119,000 for funding of the CHIA trend station initiative. OSM through the Secretary DOI's youth initiative provided funding of \$34,000 and \$27,000 to hire college interns. OSM also extended funding for \$64,746 for the Kentucky Mine Mapping Initiative. Finally, OSM provided \$216,650 in civil penalty funds to address a landslide on the Johnson-Floyd project.

Technical Assistance: The Appalachian Regional Office provided engineering assistance to KYDNR on a complex citizen complaint alleging that mining contributed to extensive flooding during May 2009 event in Breathitt County, Kentucky. A new technical assistance request was submitted to OSM to investigate a mine drainage issue.

Federal Lands Cooperative Agreement: OSM provides support to KYDNR in their implementation of the Federal Lands Cooperative Agreement. KYDNR has assumed the permitting role for operations that will mine Federal coal or mine on Federal lands. OSM assists the US Corps of Engineers, US Forest Service, and the BLM in the coordination of the permitting activities with KYDNR. OSM is also responsible for making determinations of Valid Existing Rights (VER) for KYDNR's use in the issuance of permits. The COE has several projects within the eastern coal field while the USFS manages the Daniel Boone National Forest in eastern Kentucky.

Experimental Practices: OSM provides technical assistance on experimental practice applications. During the EY OSM assisted on technical and enforcement issues associated with an experimental practice in Perry County, Kentucky. In addition, LFO attended two meetings and reviewed an experimental practice proposal from Middlefork Coal Company that proposes experimental techniques proposed by Dr. Richard Warner at the University of Kentucky.

I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior.

SMCRA provides authority to OSM to oversee the implementation of State regulatory programs and provide Federal funding for the state and tribal regulatory programs that have been approved by the Secretary of the Interior as meeting the minimum standards specified by SMCRA. The Kentucky Energy and Environment Cabinet's (EEC) Kentucky Department for Natural Resources (KYDNR) is the Regulatory Authority (RA) responsible for administering the approved program in Kentucky.

This report contains summary information regarding the Kentucky (KY) Regulatory and Abandoned Mine Lands (AML) programs and the effectiveness of the Kentucky programs in meeting the purposes of SMCRA. The report covers Evaluation Year (EY) 2012 that extended from July 1, 2011, through June 30, 2012.

The format for this report is established by OSM Directive REG-8. REG-8 provides flexibility to OSM and KYDNR to be innovative in conducting results-oriented evaluations that meet stakeholder interests and needs. The format is the same as previous years to allow for comparison between years on critical issues.

During the EY, OSM and Kentucky develop state-specific oversight plans or performance agreements to identify specific program areas and evaluation methodologies directed toward end-results measurement. The OSM LFO in consultation with KYDNR personnel incorporate public comments and develop the oversight procedures and special studies for EY 2012. The EY 2012 Performance Agreement was finalized and signed by KYDNR and LFO on February 3, 2011. This report also covers AML oversight activities as established by OSM Directive AML-22.

Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying by contacting Joseph L. Blackburn, Field Office Director at the OSM Lexington Field Office, 2675 Regency Road, Lexington, Kentucky 40503 or by emailing jblackburn@osmre.gov. Topic specific reports report can be found at on OSM's regional office website at the following address: <http://www.arcc.osmre.gov/FOs/LFO/KY/kyoversight.shtm>. Once at the site click on ODOCS icon and specify the state of Kentucky, the annual evaluation year (2012), and the category filter of *Topic Specific Oversight Reports*.

II. Overview of the Kentucky Coal Mining Industry

Kentucky is the third largest coal-producing state in the nation, with an annual production of nearly 111 million tons during Calendar Year (CY) 2011 or approximately 10 percent of the coal produced in the US. Of this total surface and underground mining produced approximately 45.5 and 66.34 million tons, respectively. This represents approximately 6.67

percent of the nation's surface mined coal and 19.12 percent of the underground mined coal. KY was the nation's leading coal producer until 1988; holding that position for over a decade until the production from Wyoming and West Virginia exceeded that in Kentucky. Kentucky's coal production has steadily decreased from the late 1990's through this EY. To illustrate this decline, the number of actively producing operations at the beginning of the EY was compared to the number actively producing at the end of the EY. KYDNR observed an overall 19 percent reduction of coal mines producing coal from beginning of the EY to the end. The data indicated that the reduction was the same for both surface and underground mines.

Due to the differing coal bearing regions within the State, nearly every type of coal mining and reclamation practice is found. Kentucky's coal reserve base, the fifth largest in the nation, consists entirely of bituminous coal. The Eastern Kentucky Coalfield is part of the Appalachian Coal Province where underground, contour, and mountaintop mining occurs. The Western Kentucky Coalfield is part of the Interior Coal Province (Illinois Coal Basin) where area and underground mining occurs.

KYDNR currently inspects 1,850 coal mining permits of which 880 are surface mining permits and 629 are underground mining permits. The remaining 341 permits are roads, preparation plants, and refuse disposal areas. The chart below shows the numbers of permits on a bar chart through time.

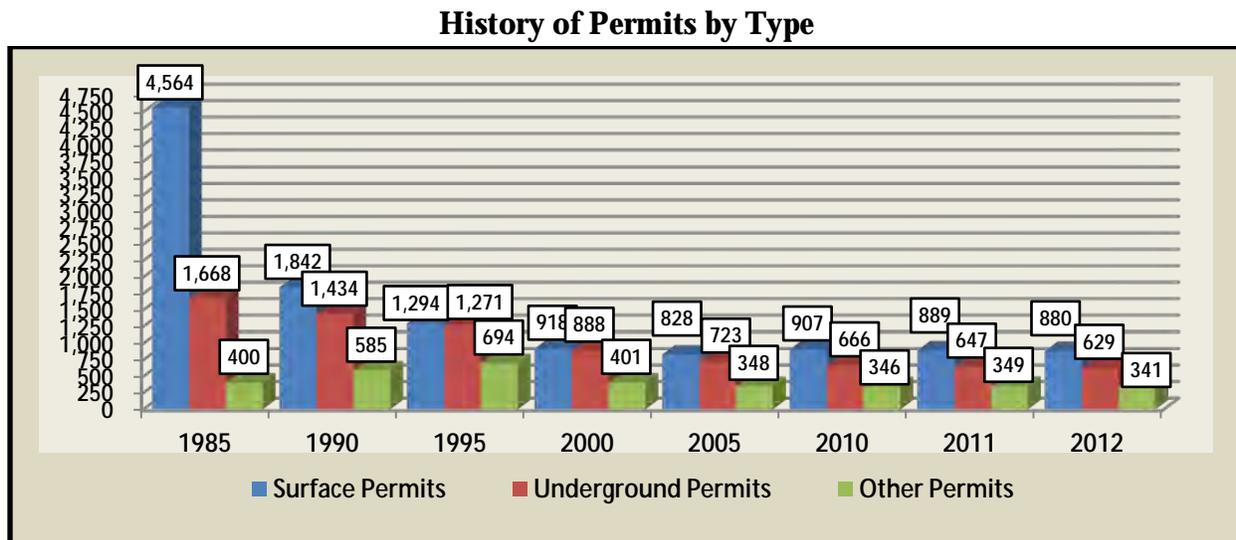
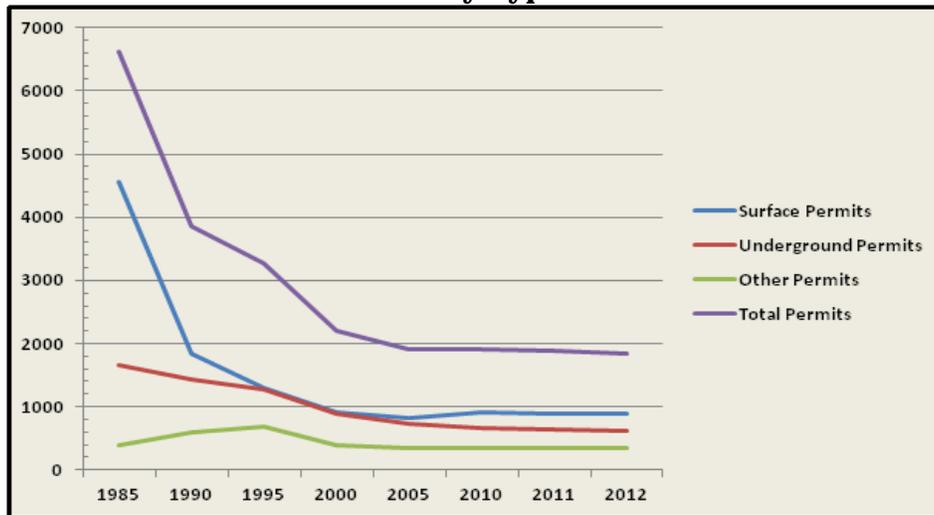


Chart showing number and type of permits from for selected years 1985 to present.

The number of permits and correspondingly the number of inspectable units have been declining over time. The following chart shows the overall decrease in permit and inspectable units over the past 25 years. The graph exhibits a sharp decline between 1985 and 1990 and continues a pronounced rate of decline from 1990 until 2005 when the trend stabilizes indicating little variation in the total number of permits. After 2005, the total number of permits (average 1888) exhibits only minor variations. Surface mine permits (average 876) follows a similar trend with minor variations including the low value of 829

permits during 2005. Surface mine permits have increased slightly over the last three years. Underground mines gradually decreased from 1985 through 2005 when the trend flattened out to average 666 permits. Other permits increased from 1985 through 1995 when they started to decline through 2005. From 2005 to 2012 the other permits averaged 346.

Permits by Type



Line graph showing the decrease in the number of permits through time.

The information for inspectable units is captured in Table 2 in the Appendix provided by OSM and KYDNR. In KYDNR's Table 2, the total number of inspectable units is calculated by adding the permanent program permits and initial sites for a total of 1,850. In OSM's Table 2, the total permanent program permits and initial sites, also includes bond forfeitures which gives a total of 1,928. The total number of inspectable units is calculated by also including the total number of exploration sites resulting in a total of 2,356.

In contrast to the decreased number of mine permits, coal produced from underground mines has steadily increased over coal produced from surface mines. Presently, underground mines account for three quarters of the permitted acres in the State, in contrast to two thirds of the permitted acreage in EY 1990. The high percentage of acreage is due to the KYDNR regulatory requirement that the shadow area overlying the underground works be permitted. However, most underground mines actually disturbed very little surface acreage. Of the total disturbed acreage from coal mining in Kentucky (245,524 acres), only 24,644 acres (or approximately ten percent) are attributed to underground mines. Both the number of underground mine permitted acres rose and disturbed underground mine acreage has gradually increased over the past two decades.

The following table depicts the permitted acreage for underground mines in Kentucky and the gradual increase in disturbed acreage during the last 21 EYs.

Underground Mines Permitted Acreage	EY 1990	EY 1995	EY 2000	EY 2005	EY 2010	EY 2011	EY 2012
< 20 Acres	N/A	2%	2%	1%	1%	1%	1%
20-99 Acres	N/A	13%	7%	4%	3%	2%	3%
100 Acres or >	N/A	85%	91%	95%	96%	97%	96%
Underground Mine Surface Disturbance Acreage	EY 1990	EY 1995	EY 2000	EY 2005	EY 2010	EY 2011	EY 2012
< 20 Acres	88%	79%	71%	70%	67%	67%	66%
20-99 Acres	10%	18%	23%	24%	26%	26%	27%
100 Acres or >	2%	3%	6%	6%	7%	7%	7%

Table showing size ranges for underground permitted and surface disturbed acreages.

Surface mines and associated facilities (haul roads and preparation plants, etc.) now account for approximately one quarter of the acreage permitted in Kentucky in contrast to one third of the permitted acreage in EY 1990. While the total acres permitted for surface mining have been declining, the size of the individual surface mine permits has been increasing. In EY 2011, two thirds of surface mines were over 100 acres in size as compared to EY 1990 where only one third were greater than 100 acres. The table below depicts the permitted acreage for surface mines in Kentucky and the gradual increase in the size of individual mines over time.

Surface Mines Permitted Acreage	EY 1990	EY 1995	EY 2000	EY 2005	EY 2010	EY 2011	EY 2012
< 20 Acres	28%	18%	14%	14%	11%	11%	11%
20-99 Acres	36%	30%	25%	23%	23%	22%	21%
100 Acres or >	36%	50%	61%	63%	66%	67%	68%

Table showing the surface mine permitted acreages grouped by size categories through time.

The following table further illustrates the trend of increasing numbers of surface mines above 100 acres by size.

Permitted Acreage	Number of Surface Mines				Percent of Total Surface Mines			
	EY 2005	EY 2010	EY 2011	EY 2012	EY 2005	EY 2010	EY 2011	EY 2012
100-250	230	245	236	237	20%	20%	20%	20%
250-500	213	232	231	231	18%	19%	19%	19%
500-1,000	180	196	207	212	15%	17%	17%	18%
> 1000	107	124	132	133	9%	10%	10%	11%
Total	730	817	806	813				

Table showing the percentage of surface mine permitted acreages grouped by expanded size categories through time.

III. Overview of the Public Participation Opportunities in the Oversight Process and the State Program

Prior to the beginning of each EY, LFO conducts outreach to all citizen and industry groups soliciting suggestions on oversight topics for the upcoming year. The draft EY 2012 Performance Agreement was e-mailed to several Federal and State agencies, environmental groups, and representatives of coal industry for input. The suggestions are considered in determining where OSM will focus its oversight resources and what aspects of the State regulatory and AML program will be reviewed. Only the KYDNR provided any feedback. This agreement includes joint and independent OSM oversight inspections as well as joint special studies on selected components of the State's program including oversight of the KYDAML. The information is available to the public at the OSM website link <http://www.osmre.gov/topic/Oversight/SCM/SCM.shtm>. Both the draft and the final versions of the EY2012 Performance Agreement are located on this webpage.

The enactment of SMCRA created many avenues for citizen involvement. Citizens have a statutory role in practically every phase of the surface mining program, from permit issuance to bond release. Since SMCRA's enactment in 1977, coalfield citizens have used those rights to help shape virtually all policies and programs that govern surface coal mining and reclamation in America.

Kentucky has several citizen organizations that are active in coal mining issues: Kentuckians for the Commonwealth; Kentucky Resources Council; Kentucky River Keeper; Kentucky Waterways Alliance; Ohio Valley Environmental Coalition; Sierra Club; Alliance for Appalachia; and Appalachian Voices. These groups are active in SMCRA issues as well as issues associated with Section 404 of the CWA. The Heartwood citizen's group has also been active on issues concerning mining operations on USFS property.

In addition to citizen group participation, industry groups also contribute to the oversight process. There are three major coal associations in Kentucky: the Kentucky Coal Association; the Western Kentucky Coal Association; and the Coal Operators and Associates, Inc. Other Pro Industry groups active in the regulatory process are Friends of Coal and Faces of Coal.

During EY 2012, KYDNR was involved in many different types of public outreach including the two discussed below:

As a result of a Secretary of Interior Order proposing potential consolidation of OSM and the Bureau of Land Management (BLM), OSM and BLM held a public meeting in Lexington, Kentucky on January 31, 2012. The public meeting's purpose was to solicit stakeholder input on the proposed consolidation. In attendance were members of the environmental community, coal industry, and state regulatory personnel.

As a result of Kentucky Resources Council (KRC) filing a Notice of Intent to Sue in December 2009 and KRC being a member of the CHIA adhoc committee, KYDNR scheduled a meeting to update KRC on the progress made to enhance the CHIA

process. On March 31, 2012, KYDNR and OSM conducted an outreach meeting with Tom Fitzgerald, Kentucky Resources Council.

At the National level in OSM and DOI, a Stream Protection Rule Environmental Impact Statement (EIS) is being developed for use in writing the new rule to better protect streams from the adverse effects of coal mining. OSM is currently reviewing the draft Environmental Impact Statement and preliminary draft rule language. There is not a scheduled date for publishing in the Federal Register.

IV. Major Accomplishments

A. Cumulative Hydrologic Impact Assessment (CHIA)

SMCRA requires a CHIA for each permit application for surface and underground mining operations. Beginning in May 2009, KYDNR moved from gauging the effects of a proposed mining operation on a larger Hydrologic Unit Code (HUC)-6 watershed scale to a more localized HUC-12 watershed. The original CHIA prediction model, developed in the 1980s, incorporated data collected by the Kentucky Division of Water (DOW) as part of a statewide ambient surface water quality monitoring network. A CHIA ad-hoc committee composed of state and federal agencies, environmental groups, and the coal industry and their consultants was convened to work toward a framework that would solve the issue and diffuse the potential for a lawsuit on the adequacy of the CHIAs. In the past three years, KYDNR has made significant advancements in the preparations of CHIAs through their data entry and evaluation program using student interns, and through the establishment of CHIA trend stations.

KYDNR is now reviewing data from past (reclaimed), present, and anticipated mining and will incorporate data obtained from recently established trend stations located at selected HUC-12 watersheds within the coal mining counties. To best establish the water quality and quantity within the cumulative impact area, all available hydrologic data mentioned above is needed to be compiled, reviewed, and evaluated. In the last two years this data review process was also supplemented by KYDNR data collected at the mouth of the HUC-12 watersheds. These points were identified as trend stations because they can be used to measure the variability of water quality trends within those watersheds.

Student Interns: Six CHIA student interns were funded in EY 2010 using an OSM grant of \$127,888. The money has been spent and the grant closed out. The students were tasked with writing watershed assessments, entering and analyzing water quality data, and digitizing permit boundaries. The interns, under the guidance of senior KYDNR staff, completed Watershed Characterization Templates on 363 HUC 12 watersheds in the Kentucky Coalfields and other 150 permit specific CHIA's. OSM has provided the KYDNR with cooperative agreement money to fund students to work in support of KYDNR's CHIA Enhancement Initiative. The 2012 MOU provides \$61,000 in funding for four interns. At the end of the current EY, there were three students participating in the program. During the current EY, KYDNR secured an additional \$34,000 in OSM funding to hire four student interns to integrate the baseline data collected before mining and monitoring data

collected during mining into the CHIA process. This information continues to be updated quarterly by the KYDNR interns and has been placed on the KYDNR DMP website at <http://minepermits.ky.gov/Pages/CHIA.aspx> for public use.

The student intern program is extremely successful in terms of the work the students have performed for KYDNR and the benefits the students have gotten from the experience. Two of the interns employed under the original cooperative agreement were subsequently hired as full-time State employees as Permit Reviewers. Permit Reviewers are professional positions vital to KYDNR's operation of the State program. One intern was hired full time as a design engineer for KYDAML. In addition to the assigned CHIA specific duties, the students are provided with opportunities for training and field exposure aimed at further enhancing their education and career development. Many positive experiences for both the students and KYDNR are resulting from this initiative.

CHIAs require all available data to be assessed and compiled before data analysis can begin. Construction of templates allows CHIA preparers to plan them more quickly because the background information is already put together. The creation and maintenance of watershed templates is where the contributions made by the interns is truly exhibited and appreciated. These templates contain considerable amounts of background information of topics such as geology, surface and groundwater quality and quantity, stream use classification and overall stream health derived from DOW data, etc. By using interns to prepare this standard template, the permit reviewers have no need to spend their time on these aspects of the CHIA process, allowing the permit reviewers to concentrate on the data analysis instead of the data compilation. Appointing interns to complete this phase of the CHIA process has resulted in more complete and accurate CHIAs that are produced in a much shorter time frame.

Also, a new computer application developed by a KYDNR GIS Specialist has allowed the CHIA permit reviewers the ability to reduce the amount of time necessary to assemble the template data from days to only a few minutes. The CHIA templates continue to improve as additional data for existing and new mine permits in the Cumulative Impact Areas (CIA) are added to the layers. The data that is compiled for the CHIA process is also available to the public through the internet. For the first time in Kentucky, the public can access data which includes water quality, benthic, groundwater quality, water quality violations, pollutant discharge information, maps, mine history, and information on pending permits.

The major task being performed by the students is capturing and inputting water monitoring data from historical Kentucky Pollutant Discharge Elimination System (KPDES) Discharge Monitoring Reports (DMRs) and baseline surface and groundwater monitoring reports currently stored as paper or image files. The student interns have entered 114,634 DMR reports and 94,464 surface and groundwater reports into KYDNR's Surface Mine Information System (SMIS). The DMR data can be used in the analysis of the overall contribution of the monitored parameters from the mine, and can be compared to downstream surface water monitoring data and trend station data as part of the Cumulative Hydrologic Impact Assessment process. OSM continues to provide a student intern to KYDNR, as well as one Americorps student, for CHIA and GIS related projects.

Pigeonroost Project: KYDNR has undertaken a CHIA special study to determine the cumulative effects of past and present coal mining operations in one watershed. Pigeonroost Fork is a HUC-12 watershed that contains several active operations, numerous bond released permits, and also unmined areas in the headwaters $\frac{3}{4}$ a relatively rare occurrence in the eastern Kentucky coalfield. Water samples are being taken on selected tributaries and the main stem of Pigeonroost to evaluate the impacts of active operations to determine an effluent characterization, to determine the cumulative effects in water quality, and to characterize the unmined areas for use as a reference stream. This study was initiated in May 2012 and is included in LFO's EY 2013 Performance Agreement. LFO is assisting KYDNR in conducting stream sampling and technical evaluation of the data.

B. Trend Data Stations

During EY 2012, KYDNR continued to use trend station sampling as a key part of their CHIA program. The stations are used to characterize the overall water quality and quantity of the watershed upstream from the monitoring points. Currently, OSM has provided funding for development and refinement of the trend stations in two phases. Phase I, initiated in June 2011, consisted of a grant to establish trend stations to monitor water quality in selected Hydrologic Unit Code (HUC) 12 watersheds in the Eastern and Western Coalfields. The trend data stations will measure cumulative hydrologic impacts at a pre-defined downstream point in the HUC-12 watershed. The trend station will provide a measure of the cumulative effects of mining and other activities. Over a period of time, it will offer the ability to predict specific parameter outcomes for each proposed mining operation in the watershed. KYDNR personnel began collecting quarterly trend station samples in July 2011 using DOW protocols and EPA methodology. KYDNR established CHIA Trend Data stations in 133 selected HUC 12 watersheds in the eastern and western coalfields. These watersheds represent 95 percent of the watersheds that have the majority of active and anticipated mining. Phase I included 64 stations and was completed in May 2012.



Kevin Devine, a GIS Specialist with the KYDNR and an intern collect water samples for testing.

Funding for Trend Stations: In July of 2011, OSM awarded \$200,000 to KYDNR to establish a monitoring network of 64 trend stations in the most critical watersheds. Phase I concentrated on the highest priority watersheds that have the most numerous coal permitting activities. In September 2011, OSM awarded KYDNR an additional \$151,048 to expand the number of trend stations from 64 to 133 and is referred to as Phase II. This money will be used to sample an additional 73 trend stations (47 eastern KY coalfields and 25 western KY coalfields). Phase II sampling for the additional trend stations began in July 2012. In July 2012, OSM awarded KYDNR \$119,000 to support

the watershed assessments conducted under Phases I and II. The trend station can be sampled for routine parameters and parameters of interest and to further refine the datasets built under Phases 1 and 2. If necessary, these funds can also be used to determine specific sources of impacts within the watersheds. The trend stations of Phase I and Phase II will provide the necessary data for cumulative assessments relevant to over 95 percent of the new permit applications received.

KYDNR has completed Phase I sampling, consisting of 4 quarterly samples of each of the 64 stations. Remaining funds have been utilized for quality assurance/quality control (QA/QC) duplicate samples and for stations that had to be re-sampled due to contamination issues. KYDNR trained selected field inspectors to complete the water quality sampling on a quarterly basis. KYDNR worked with the DOW, EPA, and COE to identify a list of the specific chemical parameters to be sampled. Two samples will be made at high and low stream flow. A NELAC-certified laboratory attached to the Kentucky Department for Environmental Protection is responsible for sample analysis and data distribution. This laboratory follows all current EPA QA/QC procedures and protocols. Sampling results will be uploaded directly into KYDNR databases and the CHIA Website where it will be accessible by the public, industry, State and Federal personnel. OSM is actively working with the Kentucky coal industry groups to provide a source of funding to KYDNR so that they can use to match the federal funds on an annual basis.

The COE, EPA, and USFWS have expressed great interest in the CHIA Trend Data station project. All of these agencies realize the importance of high quality data to allow science based analysis of the impact from mining. When implemented, this data will improve the quality of SMCRA, NPDES, and CWA 404 permits. In EY2011, EPA provided \$50,000 to purchase sampling equipment for its field personnel to sample and conduct field measurements of water quality at the trend stations.



KYDNR and OSM staff as well as interns taking part in collecting water samples and data.

C. OSM Youth Initiative – Student Internships

KYDNR continues to be an enthusiastic participant in the OSM Youth Initiative. The initiative is aimed at employing students in mining and reclamation related fields that introduce them to State regulatory work in a carefully supervised and mentored environment. KYDNR and OSM signed the 2012 OSM Youth Initiative Student Intern Program MOU in April 2012. This continues KYDNR's participation in the initiative that started in 2010. OSM also has one student intern and two AmeriCorps participants who

work on GIS related CHIA activity for KYDNR.

As discussed earlier in this report, Kentucky has taken full advantage of the OSM offer of cooperative agreement money to fund students to work in support of KYDNR's CHIA Enhancement Initiative. The 2012 MOU provides \$61,000 in funding for four interns. The previous year's \$127,888 funding was spent and is closed out. At the end of the EY, there were three students participating in the program.

The students are State employees hired to compile and record historical water quality data; write watershed assessments describing such things as land uses, past, present, and anticipated mining; and assist with various GIS projects related to CHIA. This is an extremely successful program in terms of the work the students have performed for KYDNR and the benefits the students have gotten from the experience.



A student intern learns water quality management techniques from Courtney Mastin of OSM.

Two of the interns employed under the original cooperative agreement were subsequently hired as full-time State employees as Permit Reviewers. One of the AmeriCorps volunteers was hired by the Kentucky Division of Abandoned Mine Lands as a design engineer. Permit Reviewers are professional positions vital to KYDNR's operation of the State program. In addition to the assigned CHIA specific duties, the students are provided with opportunities for training and field exposure aimed at further enhancing their education and career development. Many positive experiences for both the students and KYDNR are resulting from this initiative.

D. Reforestation

KYDNR continues to improve their reforestation efforts through expansion of their role in the Appalachian Regional Reforestation Initiative (ARRI). One of the primary functions of ARRI is to develop new technologies and to transfer research findings to industry, landowners, state and federal agencies, and other interested parties for implementation on surface coal mine sites in the coal mining regions of the state. KYDNR has further expanded their roles with ARRI by recently partnering with GFW to convert abandoned grassland reclamation of legacy (pre-law) surface mined land to forests. GFW is a 501(c) (3) non-profit organization that is independently funded through grants, donations, and other sources.

On September 28, 2011, GFW received a \$300,000 grant from the Appalachian Regional Commission (ARC) and will combine the ARC grant with other funding sources to expand the economic development program based on the successes and science of the ARRI. Through this grant and other funding, GFW has strengthened its partnerships with

KYDNR, federal agencies, watershed groups, coal operators, conservation groups, environmental organizations, faith-based groups, numerous universities and colleges, and K-12 schools.



KYDNR partners with Green Forest Works at the Fish Trap Lake tree planting event (photo by Karen Mauro).

During EY 2012, KYDNR partnered with GFW to coordinate volunteers for twelve tree-planting projects/events throughout Kentucky. During those twelve events in 2012, the KYDNR assisted over 749 volunteers from those constituencies in planting 44,355 trees on 46.15 acres. GFW is gaining momentum and the tree planting events are now evolving into large scale projects funded by grants, cost share programs, utility companies seeking carbon credits, corporate and personal donations. By the end of 2012, nearly 2 million trees had been planted on non managed grassland reclaimed sites to return those sites to forestlands.

The goal of ARRI is to encourage the planting of more high-value hardwood trees on reclaimed coal mined lands in Appalachia and to increase the survival rates and growth rates of the planted trees. To accomplish this, the ARRI promotes the use of the Forestry Reclamation Approach (FRA) for reclaiming mining disturbances. This approach involves:

1. Identification and handling of backfill materials that would serve as suitable rooting medium;
2. Limiting the compaction during placement so the rooting medium is only loosely graded;
3. Using native and non-competitive ground covers that are compatible with growing trees;
4. Planting early succession and commercially valuable crop trees; and
5. Using proper tree planting techniques.

The KYDNR has developed policy guidance documents known as Reclamation Advisory Memorandums (RAMs) to provide guidance. RAMs are open correspondences from the commissioner of KYDNR to operators and other interested persons that provide information related to their surface mining regulatory program. The RAMs #124 and #144 cover the FRA including details on the 5 basic steps that must be utilized to achieve a successful forestry post mining land use. These RAMs can assist in the enforcement of the postmining land use provisions required by KYDNR of the operators using the FRA. However, KYDNR still receives and approves requests from landowners for changes in the post mining land use (PMLU) from forest land to hayland and pasture, and other land uses.

New Permits 2011: ARRI's State partners in the Appalachian Region provides data to OSM in response to the U.S. Department of the Interior, Office of Inspector General (OIG).

KYDNR reported that in calendar year (CY) 2011 they permitted a total acreage of 16,450 acres on new surface mines. The mining companies committed to reclaiming 10,291 acres or 62 percent of the 2011 newly permitted surface mines using the RAM #124 techniques. The use of FRA on the 10,291 acres would result in the establishment of nearly seven million new trees (assuming a planting rate of 680 trees per acre and 100 percent survivability) provided that the operator follows through on the existing plans.

Bond Release 2011: During calendar year 2011, KYDNR granted Phase III bond release (complete release) for 1,845 acres that had been previously planted with trees and shrubs. Based on their records, at least 210 acres or 11 percent of the bond released acreage had trees planted using the FRA approach. Assuming a planting rate of 680 trees per acre, the 210 acres would represent a total of 142,800 trees. The remaining 1,635 acres had trees and shrubs planted but the operators may or may not have specifically followed the FRA approach. If the planting plan for the trees averaged 680 trees per acre the remaining 1,635 acres would comprise approximately 1,111,800 trees.

The KYDNR has indicated a desire to provide mined-land reforestation training to all inspection and enforcement employees in their five regional offices and to the permitting staff in Frankfort.

Significant reforestation related events during the EY included the following:

Premier Elkhorn Arbor Day Celebration 2012

On April 17, 2012, more than 110 students and their teachers from Dorton Elementary and Virgie Middle School in Pike County planted over 950 high value hardwood seedlings on Premier Elkhorn's Esco - Penny Road surface mine. Additionally, the students participated in a special planting of 50 Hybrid (back-crossed) American chestnut seedlings developed by The American Chestnut Foundation to re-establish this important species throughout the Appalachian Region. The high value hardwood seedlings were supplied by TreeCyclers and the Kentucky Division of Forestry.



Students plant seedlings at the Premier Elkhorn Arbor Day Celebration.



Dr. Tammy Horn instructs students on how to keep a bee colony.

Dr. Tammy Horn of Eastern Kentucky University and Coal Country Bee Works conducted a mini-workshop on establishing a bee colony. The students donned "bee suits" to observe and interact with bees and their hive activities.

Coal Mining Our Future hosted a poster contest for the Virgie and Dorton students with the theme “Kids, Bees and Trees”. The top three entries received \$100, \$75, and \$50 saving bonds, respectively.



Bob Zik, Vice President of Premier Elkhorn Coal, presents the poster contest award to the winner.

Premier Elkhorn Coal Company Wins 2011 Kentucky ARRI Award

Premier’s Letcher County surface mining operation, permit #867-0390, was the recipient of the 2011 KY ARRI Award for “Excellence in Reforestation.” This more than 590 acre surface mine began in 1998 and has received final bond releases on all but two of its sixteen increments. Premier has planted over 300,000 trees and shrubs at this Letcher County mine site. The company reclaimed the site to a fish and wildlife post mining land use with tree species including dogwood, white oak, white ash, Virginia pine and white pine. The permit areas and adjacent properties now support a significant population of deer, turkey, waterfowl, and many other avian and terrestrial wildlife species. The company continues to work with KYDNR, ARRI Core Team Leader, Paul Rothman and KYDNR Pikeville Regional Office staff by setting aside, preparing, and monitoring areas within the permit for special reforestation efforts developed by ARRI.



Premier Elkhorn Coal Company's Joe's Branch Mine site in Letcher County, Kentucky.

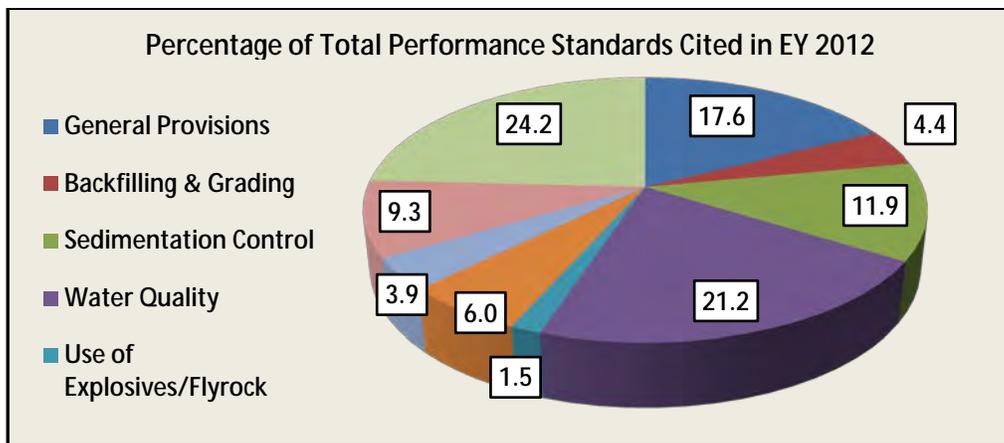
V. Success In Achieving the Purposes of SMCRA

During the EY oversight activities, special studies are conducted to gauge KYDNR's success in achieving the purposes of SMCRA. The following are highlights of studies and general oversight findings made throughout the year.

A. Off-site Impacts

KYDNR's program for protecting the public and the environment from off-site impacts is evaluated by collecting and analyzing known off-site damages from surface and underground coal mining permits in Kentucky. During the EY, KYDNR supplies LFO with all non-compliances (NC) and Cessation Orders (CO) and associated inspection reports that contained off-site impacts. LFO analyzes this information and documents the magnitude and root cause of off-site impacts.

During EY 2012, KYDNR issued 1,331 NCs. These NCs cited 2,716 performance standards. This is an increase in enforcement actions from the EY 2011 report that showed 1,244 NCs citing 2,722 performance standards. A complete listing of enforcement actions (by company name and alphabetically) issued by KYDNR is found in Appendices C and D. The most frequently cited violation type was general sedimentation control followed by water quality. A breakdown by type of performance standards based on the 50 State category types presented as a percentage is as follows:

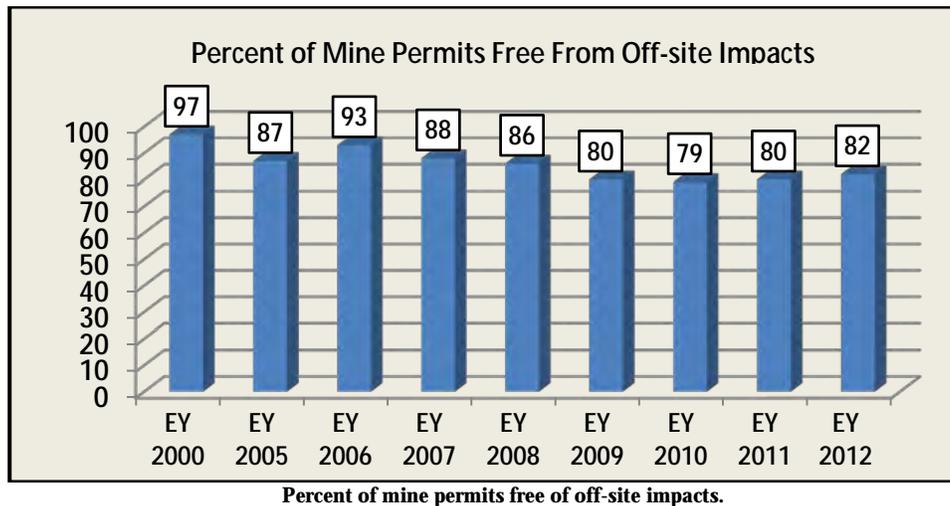


Percentage breakdown by category of the non-compliances during EY 2012.

KYDNR issued 407 NCs that contained off-site impacts. The 407 enforcement actions identified 549 measurable off-site impacts. The determination of off-site impacts was based on KYDNR's documentation and the LFO reviewer's interpretation of the enforcement language used in the inspection reports associated with the enforcement action. The LFO reviewer may also contact the issuing KYDNR inspector for information.

The 407 enforcement actions with off-site impacts involved 332 permits representing This 18 percent of the 1,850 inspectable units (permits). The remaining 82 percent of the 1,850 permits were free of off-site impacts. The NCs with off-site impacts were analyzed for type of incident, resource affected, degree of impact, and root cause.

As can be seen in the chart below, the number of permits free of off-site impacts has been declining since EY 2006, with a slight increase in EY 2012.



Of the 549 measurable off-site impacts, 39 percent were for land stability, 26 percent were for encroachment, 21 percent were for hydrology, two (2) percent were for blasting, and the remaining other types of impacts represented 12 percent.

From the data collected, the total impacts from coal mining operations for the EY included 127.2 miles of streams; 1,617 acres of land; 12 wells; and 46 homes. The findings for off-site impacts indicate that approximately 67 percent of the measured incidents involved land, 20 percent involved water, eight percent involved structures, and five percent involved people. The majority of impacts were minor, making up 74 percent of the total, 22 percent of the incidents were considered moderate, and four percent were considered major incidents. The largest impacts occurred within a few permits. The root cause of 81 percent of the impacts was attributed to operator negligence, improper construction techniques accounted for 17 percent, and unanticipated natural events (such as flooding) constitute the remaining two percent.

B. Reclamation Success (I&E)

The goals of reclamation are to restore all land disturbed by a surface and underground coal mining operations to be stable, vegetated, non-polluting, and achieve an equal to or greater land use value than the pre-mining condition. A performance bond is collected to ensure that the operator conducts the mining and reclamation in a manner that will achieve these goals. The Kentucky program implements a system of phased bond releases to reduce the original bond amounts as the operator successfully reclaims the disturbance created in the

mine sites. To satisfy Phase I requirements



An inspection in progress on permit 807-5109 in Bell County, Kentucky.

in Kentucky, the reclaimed area must be backfilled, regraded, topsoiled, seeded, mulched, and have drainage control systems. The operator must also submit a planting report. Phase II requires the reclaimed areas to have established vegetation in accordance with the approved reclamation plan and meet the standards for re-vegetation success, except for productivity standards. Also, the reclaimed area must not contribute suspended solids to stream flow or runoff outside the permit area. Phase III requires that the reclaimed area must successfully meet all surface coal mining and reclamation standards in accordance with the approved reclamation

plan, that the reclaimed land must be capable of supporting the approved post mining land use (PMLU) requirements, and that the applicable liability period must have expired.

In Appendix B, Table 6, KYDNR reported that it granted the following bond releases: Phase I - 13,592 acres, Phase II - 4,879 acres, and Phase III - 12,648 acres. OSM's review of these minesites through 65 joint inspections on Phase I and Phase III bond releases found that KYDNR is meeting the requirements of its bond release program on permanent program permits.

1. Phase I Bond Release

Forty-one Phase I bond released mine sites were inspected as part of OSM's random oversight inspection program. The purpose of these inspections is to determine if all applicable bond release standards were met at the time the Phase I bond release was granted by KYDNR. OSM found that KYDNR is meeting its requirements for Phase I bond release on permanent program permits.

2. Phase III Bond Release

Twenty-four Phase III bond release inspections were conducted jointly with the KYDNR inspector and the bond release specialist. OSM found that KYDNR is meeting the requirements for Phase III bond releases on permanent program permits.

3. Contemporaneous Reclamation

Contemporaneous reclamation was identified and evaluated in 2003 and then again in 2011 to determine if the KYDNR had improved their process. According to the 2011 study,

KYDNR addressed the EY 2003 oversight findings. KYDNR is monitoring the contemporaneous reclamation variance during field inspections.

An evaluation of the compliance data collected by KYDNR and OSM was evaluated for this year's annual report. In their inspection and enforcement (I&E) practices, the State uses both contemporaneous reclamation (CR) and backfilling and grading (BG) codes to cite contemporaneous reclamation non-compliances. The value for each category of non-compliance was combined to get a total to represent worst case conditions.

Evaluation of State Compliance Data: The KYDNR wrote 1,331 non-compliances citing 2,716 violations. Of these violations, 60 were denoted as CR and 120 as BG. The combined total of 180 represents only about seven percent of the total violations written for this EY by the State. The state also reported that they received 704 citizen complaints this EY. Of those complaints two were written for BG and one for CR. The total of three citizen complaints involving contemporaneous reclamation represented less than one-tenth of one percent of the total citizen complaints.

Evaluation of OSM Compliance Data: OSM conducted 424 comprehensive inspections this EY and observed 461 violations. Of those violations only 21 were attributed to contemporaneous reclamation. This represents approximately 4.5 percent of the total violations for the EY.

C. Customer Service

1. Citizen Complaints

At the beginning of EY 2012, KYDNR had 206 pending citizen complaints (ongoing investigations). A total of 563 citizen complaints were received during EY 2012. Of these 769 complaints, KYDNR investigated 637 and responded to 637 of those complaints. As of June 30, 2012, 103 actions were pending on citizen complaints. Percentage wise, the top five complaints received this EY were Blasting (20 percent), Off Permit Disturbance (19 percent), Hydrologic Balance (14 percent), Dust (14 percent), and Water Quality (nine percent). These top five categories made up 76 percent of all complaints received. LFO didn't evaluate the percent of complaints verified to be violations.

The number of citizen complaints received by KYDNR has remained relatively consistent for the past ten years, but is significantly less than the levels recorded in the 1990s. During EY 2012 KYDNR received less citizen complaints than the previous ten years. This is a positive trend. The following chart shows the number of citizen complaints received since 1990.

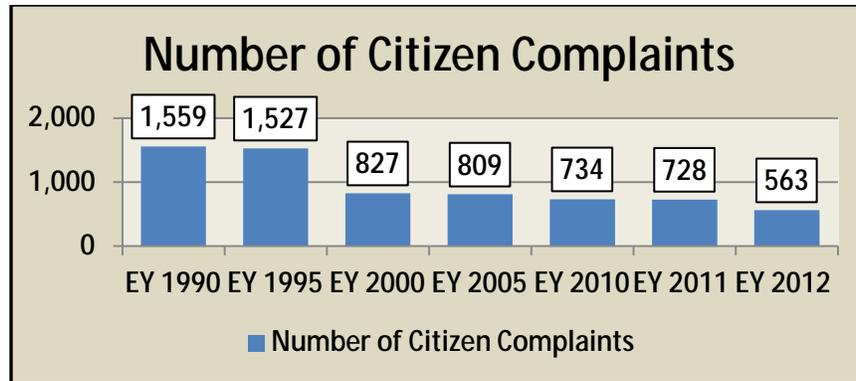


Figure showing the decline in the number of citizen complaints.

2. Notice of Intent to Sue (NOI)

A NOI is a citizen suit authorized by Section 520 of SMCRA. During the EY, KYDNR, OSM and the coal industry continued to receive NOIs. Five new NOIs were filed during the EY. The Kentucky environmental groups partnered with other environmental groups to file the five NOIs. The environmental groups are Sierra Club, Kentuckians for the Commonwealth, Appalachian Voices, and Appalachian Mountain Advocates. One NOI was filed against KYDNR permitting decisions; three NOIs were filed against coal industry companies relating to Clean Water Act (CWA) and SMCRA hydrologic issues; and one NOI was filed against a coal company regarding a specific flooding event in July 2010. Four NOIs were pending resolution at the close of the EY. A summary of the NOIs filed in EY 2012 are as follows:

Sierra Club et al. v. Laurel Mountain Resources, LLC - On May 25, 2012, the Sierra Club and a citizen filed a 60-Day NOI putting Laurel Mountain Resources, LLC on notice of their intent to file a citizen suit under the Surface Mining Control and Reclamation Act (SMCRA) and Clean Water Act for violations on permit # 836-0406. The NOI alleges: (1) failure to conduct mining operations to protect surface areas from erosion and water pollution, (2) failure to minimize the hydrologic balance at the minesite and specific areas off the permit area, (3) failure to prevent material damage to the hydrologic balance off-site of the permitted area, (4) violation of effluent standards, (5) failure to minimize disturbances and adverse impacts to fish, wildlife, and the environment off-site, (6) failure to protect underground mine workings by causing water pollution linked to the underground mine works in the area, (7) failure to conduct auger mining to prevent water pollution, and (8) failure to notify the Cabinet (EEC) of dangerous conditions related to landslides on the permit area. OSM responded on May 11, 2012, to a complaint alleging imminent danger. The OSM inspection found that an imminent danger did not exist. OSM is working with KYDNR to complete a technical review of the alleged violations.

Appalachian Mountain Advocates et al. v. KYDNR - On May 3, 2012, the Appalachian Mountain Advocates on behalf of the Sierra Club, Kentuckians for the Commonwealth, and Appalachian Voices filed an NOI against KYDNR. The NOI alleges: (1) KYDNR failed to adjust the performance bond amounts for numerous SMCRA permits in Kentucky in

response to information available to the Department showing the need for long-term treatment of selenium discharges from the permitted mines, and (2) KYDNR has a pattern of issuing surface mining permits based on applications that do not include adequate information for KYDNR to determine the potential for selenium pollution. This NOI is similar to the NOI filed against OSM in Tennessee on February 9, 2012.

Appalachian Citizen's Law Center et al. v. Cambrian Coal Company - On December 8, 2011, the Appalachian Citizen's Law Center filed the NOI representing two citizens. The NOI alleges that a rain event in July 2010 caused significant erosion off Cambrian Coal Company's permit number 898-0619 that damage and is continuing to damage the two complainant's property. KYDNR cited the violation (non-compliance 53-2425) on July 26, 2010. On January 5, 2011, the violation was abated by KYDNR. A formal Secretary Order upheld the violation on November 23, 2011. On August 10, 2010, OSM issued a TDN number 10-081-414-051 alleging damage from flooding conditions. On April 19, 2012, OSM agreed with the actions taken by KYDNR in response to the flooding in the Harless Creek watershed of Pike County, Kentucky, based on a technical report. OSM found that no present violation exists and KYDNR demonstrated good cause for not taking further enforcement action. The coal company agreed to a settlement with the citizens.

Appalachian Mountain Advocates et al. v. Laurel Mountain Resources, LLC - Based on water sampling from January through April 2011, the Appalachian Mountain Advocates filed a NOI on behalf of the Sierra Club and Kentuckians for the Commonwealth against Laurel Mountain Resources, LLC on October 26, 2011. The NOI was filed under Section 505 of the CWA and section 520 of SMCRA for violations stemming from unpermitted discharges of selenium and pollutants associated with conductivity on mine permit 858-0231. The NOI provides 8 examples of selenium discharges exceeding the chronic narrative water quality standard of 5 µg/l (three of the samples exceeded the acute narrative water quality standard or 20 µg/l). Kentucky Division of Water (DOW) considers exceeding the acute narrative water quality standard of 20 µg/l a water quality violation; whereas, DOW evaluates chronic narrative water quality standards to determine if a violation exists

Appalachian Citizen's Law Center et al. v. ICG - Based on water sampling from April through June 2011, the Appalachian Citizen's Law Center filed a third NOI on behalf of the Sierra Club against ICG on September 26, 2011. The NOI was filed under Section 505(a)(1) of the Clean Water Act and Section 520(a)(1) of SMCRA for violations stemming from unpermitted discharges of selenium and pollutants associated with conductivity on ICG's mine permit 866-0281. The NOI provides 43 examples of selenium discharges exceeding the chronic narrative water quality standard or 5 µg/l (one of the samples exceeded the acute narrative water quality standard of 20 µg/l). Kentucky Division of Water (DOW) considers exceeding the acute narrative water quality standard or 20 µg/l, a water quality violation, whereas, DOW evaluates chronic narrative water quality standards to determine if a violation exists. The NOI also alleges that the permittee exceeded the 300 µS/cm conductivity as evidenced by the discharges that ranged from 403 µS/cm to 3,330 µS/cm for every KPDES outfall with a discharge. The KYDNR is requiring the company do analysis and report for Selenium and DOW is evaluating discharge sampling.

From a previous year's NOI, the Appalachian Citizens' Law Center et al. won an appeal to the Kentucky Supreme Court. On April 27, 2012, the Kentucky Supreme Court upheld Franklin Circuit Court Judge Phillip Shepherd's decision to allow citizens' groups to intervene and voice objections to proposed settlement between EEC and Frasure Creek Coal Company regarding water quality violations under the Clean Water Act.

3. Interagency Coordination

KYDNR and LFO are active participants in the Interagency Clean Water Act Coordination efforts. Agencies involved include EPA, COE, USFWS, KYDOW, and KDFWR. KYDNR hosts meetings of the staff level interagency workgroup and is an active contributor to that group. The staff level group met four times and conducted one conference call during the EY and has completed a guidance document titled "*Kentucky Pre-Application Coordination Process for Coal Facilities.*" Goals for Pre-Permitting Coordination include:

- Reduce the cumulative time required for review of permit applications for SMCRA and CWA 402 and 404 permits and 401 WQC;
- Eliminate unnecessary re-design and re-review of mine plans by identifying constraints up front;
- Consolidate pre-permitting sampling and analysis efforts to reduce time and expense to the applicant;
- Identify critical resources or other features that will further characterization (survey, documentation) or special consideration in the mine plan;
- Obtain COE verification of the applicant's proposed jurisdictional determination prior to submittal of the SMCRA comprehensive application for FPOP fill design; and
- Assure consistency of information provided to all agencies to avoid approval of conflicting plans.

A Local Interagency Coordination Agreement (LICA) was completed and signed by all the parties on June 21, 2012.

KYDNR is also an active participant in the Quarterly Interagency Fill Meetings hosted by the OSM LFO. All Federal and State agencies with an interest in CWA permitting, especially in excess spoil disposal, attend and participate in these meetings. There were four of these meeting held during EY 2011.

A Fill Placement Optimization Process (FPOP) workshop took place in EPA's Region IV office in Atlanta on November 14-15, 2011, to discuss ways in which FPOP might be amended to enhance the regulatory protection of jurisdictional aquatic resources in eastern Kentucky. This workshop was conceptualized during a quarterly interagency permit

coordination meeting held September 29, 2011, at LFO. FPOP was memorialized as a guidance document in a RAM issued December 16, 2009, by the KYDNR which was described as “...an objective and systematic process for achieving approximate original contour (AOC) on steep slope surface mine operations while providing a means for determining excess spoil quantities,” (RAM #145). It standardizes initial spoil volume calculations among mining engineers, thereby allowing for a consistent “apples to apples” technical review of mine permit applications. FPOP works within the AOC requirements of SMCRA to encourage the maximum use of practicable off-site spoil disposal locations before seeking the most efficient placement of fill material into valleys where jurisdictional aquatic resources may lie. The agencies have agreed to meet with the original workgroup in early EY 2013 to consider changes to the original document.

4. Clean Water Act (CWA)

During the EY, there continued to be increased scrutiny by the EPA regarding CWA 402 and 404 permits. An increasing number of KPDES watersheds and receiving streams now require an individual permit (IP) instead of a general permit and require additional time for issuance. The delay in issuance of individual KPDES permits causes concern that coal mine operators may start (or continue) mining operations without an approved KPDES permit ³/₄ especially in areas previously issued general permit for mining operations. KYDNR is aware of the problem and has implemented a comprehensive review of SMCRA permits in coordination with the DOW to make sure that mining operations do not begin operating until all permits have been issued. At the end of the EY, there were 37 IPs with an EPA objection letter pending and one additional permit that had received comments from a coal company and EPA. On June 5 and 7, 2012, in Frankfort and Pikeville respectively, EPA held public hearings on 36 listed draft NPDES permits that resulted in specific objection letters to each of the draft permits by EPA. After the hearings EPA plans to either reaffirm the original objection or modify the terms of the objection. DOW would then submit to EPA a revised permit that addresses the remaining objections, or yield the exclusive authority to issue the permit to EPA for one permit term. For any permits for which EPA withdraws its objection, DOW would proceed with the permit issuance process.

KYDNR requires that the coal mine permittees obtain a KPDES permit prior to disturbance of the site. On May 3, 2011, KYDNR issued RAM #150 that addresses KPDES permits for coal mining activities including permit reporting and on-site record-keeping requirements. Another issue of concern is the implementation of electronic reporting of DMRs and whether the coal water labs are properly filing this material with KYDNR. In response to both of these issues, KYDNR has coordinated with DOW during the EY to improve the coal permitting work flow and synchronize the computer systems in order to more accurately determine the status of KPDES permits in relation to the Kentucky SMCRA permit. During EY 2012, KYDNR cited 11 non-compliances to coal companies for failure to obtain KPDES permits.

An interagency permit workgroup has developed an interagency permitting protocol that has been reviewed and approved by each agency. EPA is seeking the agencies to sign a local

interagency coordination agreement (LICA) to memorialize coordination efforts. The LICA was signed on June 20, 2012. The purpose of the LICA is to improve agency communications and coordination associated with all aspects of the permitting processes, compliance and enforcement associated with coal mining activities in Kentucky under the respective state and federal reviews required by the CWA, SMCRA, and Endangered Species Act (ESA).

On September 11, 2009, EPA identified 79 proposed surface mining projects in Appalachia for Enhanced Coordination Procedures (ECP) review of the CWA permits (CWA Sections 402 on water quality and 404 on applications pending before the COE). Forty nine of these projects involved Kentucky coal mine operations. KYDNR had issued SMCRA permits on 45 of the 49 projects and issued nine enforcement actions to permittees for violating the SMCRA permit condition that prohibits disturbance of waters of the United States prior to obtaining a CWA 404 permit. On October 6, 2011, the Federal District Court for the District of Columbia set aside the ECP developed by the Department of the Army and the Environmental Protection Agency to expedite review of 79 pending Appalachian surface coal mining permit applications. Corps Districts and the EPA Regions in Appalachia have all ceased using the ECP as of the date of the District Court's decision. Since the court invalidated the ECP, the COE continued processing the applications based on the regulatory requirements established under the Clean Water Act.

5. Threatened and Endangered Species (T&E)

KYDNR continues to coordinate with the USFWS on permitting for surface coal mine and reclamation operations to meet SMCRA requirements for fish and wildlife resources in Kentucky coal fields. During EY 2012, KYDNR worked to improve coordination over aquatic threatened and endangered species, such as the Blackside dace. On June 20, 2012, OSM LFO signed a Local Interagency Coordination Agreement (LICA) with Federal and State Agencies. The LICA was signed by other federal agencies including the COE, EPA, USFWS and with the state agencies including the KYDNR and DOW. The purpose of this LICA is to improve agency communication and coordination associated with all aspects of the permitting processes, compliance and enforcement associated with coal mining activities in Kentucky under the respective state and federal reviews required by the CWA, SMCRA, and ESA. The goal of the LICA process is that all of the permitting agencies will have their concerns addressed before SMCRA and 402/404 CWA permits are issued.



Blackside dace (photo - Kentucky Transportation Cabinet)

On September 18, 2009, KYDNR issued RAM #142. The RAM provides range-wide Indiana bat protection and enhancement guidelines. To implement the guidance, outreach efforts conducted by the States and their FWS field office counterparts were initiated on September 17, 2009, with training provided to State permitting, consultants and bat biologists. In CY 2011, 49 Indiana bat surveys were conducted on Kentucky mining permit areas. No Indiana bats were captured as a result of these surveys; however, as a result of three Anabat recorded calls, several additional mist net surveys were required. In CY 2011, 29 Indiana bat protection and enhancement plans (PEP) were developed. These 29 PEP's require restoration of 2,388 acres of forest land. KYDNR is coordinating with the USFWS on protection of the Indiana bat.

6. The Approved State Program

During the current EY, OSM issued a 30 CFR Part 733 letter to Kentucky; KYDNR submitted two proposed amendments for OSM review; and OSM published a proposed rule on a previously submitted proposed program amendment. Below is a summary of each state program activity.

- On May 1, 2012, in accordance with 30 CFR 733.12(b), OSM notified Kentucky's Energy and Environment Cabinet (EEC) that we had reason to believe that state is not implementing, administering, enforcing, and maintaining the reclamation bond provisions of its approved program in a manner that ensured that the amount of the performance bond for each surface coal mining and reclamation operation is "sufficient to assure the completion of the reclamation plan if the work had to be performed by the regulatory authority in the event of forfeiture," as required by section 509(a) of SMCRA. As stated in the letter, since 2008, bond proceeds have been insufficient to complete the approved reclamation plan for 51 of the 61 forfeited permits.
- In response, on May 4, 2012, the EEC filed two emergency regulations with the Kentucky Legislative Research Commission to address the bonding issue. Under state law, the emergency regulations took effect on that date and will remain in effect for 180 days. During that time, identical proposed revisions will undergo the normal state review process for changes to administrative regulations. The process provides for: public comment and public hearings (if requested), legislative subcommittee review, review by OSM as a proposed program amendment. The bonding regulations increase base bond amounts, increase the minimum bond, increase bond amounts for embankment sediment structures, increase the supplemental assurance, require an additional bond for long-term water treatment, and require KYDNR to evaluate the bond amounts every two years.
- On January 30, 2012, the State submitted a proposed program amendment (containing administrative regulations) that proposed electronic notification of enforcement documents instead of the documents provided in paper form. These proposed changes are intended to be cost saving measures. The State believes that

they are as effective as those required under SMCRA and the Federal regulations. On June 12, 2012, OSM published the proposed rule for comment on these regulation changes.

- On May 10, 2011, KYDNR submitted HB 385 to OSM for review. HB 385 amends KRS 350.060 to require that any determination by the EEC to change a bond requirement or bond amount currently in use will result in a new administrative regulation that includes all bond requirements including the bond amount, proscribe bond amounts from being instituted as policy and require after the effective date of the Act an administrative regulation that fails to include bond amount protocols to be declared automatically deficient. The HB was signed by the Governor on March 17, 2011, and went into immediate effect. OSM published the proposed rule in the Federal Register on August 15, 2011.

7. Lands Unsuitable

The EEC is authorized to establish a planning process that enables objective decisions, based upon competent and scientifically sound data, to determine if areas should be designated as an area unsuitable for all or certain types of surface coal mining operations. During this EY, there was no activity on lands unsuitable for mining petitions.

8. Kentucky Mine Mapping Initiative

KYDNR continues to make significant progress on its mine mapping initiative. The Underground Mine Mapping Information System (MMIS) offers immediate online access to geo-referenced underground mine maps to the public, resource extraction industries and governmental agencies. The online service allows for the identification of historic and current mining activity in both of Kentucky's coalfields and can be used to avoid hazards created by unmapped underground voids. The mine maps can be accessed through the following website: <http://minemaps.ky.gov>.

The system continues to provide essential information in the event of mine disaster rescues, subsidence issues, and blow-outs from abandoned mines. OSM (through the Mine Map Repository) awarded KYDNR \$64,746 in EY 2012 to continue this crucial effort.

As of June 30, 2012, the database contained 74,447 total scans of which 32,538 were transmittal documents and 39,909 were maps. The number of geo-referenced maps has reached 34,989. The site averaged approximately 13,000 hits a day and 400,000 hits a month for the first two quarters in 2012. KYDNR sent a database of 182,000 historical records (1884 – 2002) to accompany Kentucky's scans to OSM's National Mine Map Repository in Pittsburgh, Pennsylvania.

9. Geographic Information Systems including GeoMine

Over the last evaluation year KYDNR continues to strengthen Kentucky's GIS program. KYDNR is hiring more people to assist with the workload. A full-time GIS position was added in EY 2012, bringing the total to four full-time staff currently in place. Through various funding sources, the GIS staff also includes five interns. The KYDNR GIS team has continued to make key advancements to Kentucky's GIS efforts.

GIS continues to serve the KYDNR mining Divisions with a variety of applications, data, and custom maps. OSM's Technical Innovation Professional Services (TIPS) program provides the licenses for the GIS software, and the State monitors license usage. The primary GIS application used by the State of KY is ArcMap, which has been upgraded to version 10 for all users. DMRE was shown to use more TIPS GIS software through its license server than any other state.

In the field, State inspectors and other personnel use terminal service as the preferred method to access GIS data, as it displays maps and data quickly. ArcPad is utilized in special cases for mobile GIS needs, and Google Earth is being evaluated for quick viewing of aerials.

In 2009, a pilot project with the Kentucky Geologic Survey (KGS) was initiated to determine the feasibility of digitizing the older permit boundary overlay images to add to its GIS mining layers. These overlays capture mining boundaries from the 1960's through the year 2000. Having Kentucky's permit boundaries digitized and available for the National Map project is a high priority, and funding is critical. With the assistance of OSM and other agencies, funding to support this effort was initially made available in 2010. Currently, the permit boundary overlay maps are nearly all scanned and geo-referenced and can be used a layer in GIS to identify known historic mine features. Since 2000, information from coal mining activities has been captured in the form of the Mining and Reclamation Plan (MRP) maps. The MRPs are scanned and geo-referenced and made available to the public for GIS applications from the KYDNR Website.

Currently, KYDNR is actively participating in the GeoMine Pilot Project ³/₄ an OSM concept of an internet-accessible GIS database of coal mines in the United States. The geographic scope of the pilot project is limited to the SMCRA primacy states of Kentucky, Virginia, West Virginia, and the Federal-administered Tennessee program. All of the states involved in this project will have to compile and sort its data in order to display its coal mining data in the same format, and at one location online. With a task of this magnitude, and with limited personnel and funding, the GeoMine pilot project sought additional grant funding to support the states with assessing GIS needs and provide the most urgent needs to achieve the project's goals. Kentucky used the grant to obtain hardware and software including a large format scanner, the necessary software, and six terabyte memory arrays for a server. The funding also allowed the State to hire interns to assist with the data preparation and organization for this project. The work should be complete sometime in EY 2013. KYDNR continues to create additional digital data to address the agency's needs, train KYDNR staff on both the applications of the software systems and the different data

types that are available in the system. Presently over 18,500 permit boundaries have been digitized and made available for the GeoMine Pilot Project.

In January 2011, the Commissioner for KYDNR released RAM #148 entitled "*Submission of Shapefiles for Permit Applications*" for use by the industry. RAM #148 notified the public of new GIS mapping requirements, and implemented a standard for permit features being submitted in shapefile format. Training was provided to the coal industry. DMP is reviewing the data that is being submitted by the industry. All permit applications are to be submitted in electronic format at this time and the shapefiles will help permit reviewers and other specialists more efficiently analyze the volume of data that is submitted resulting in a more productive permitting process.

One area that GIS is already making a significant impact is with the CHIA effort. In the past, CHIA preparation would many times take weeks because so much data was required. Much of the CHIA data was housed in different locations and, depending on the watershed the project was located in, poor data or gaps in data were often found. The GIS staff has compiled the necessary data in the CHIA templates for the HUC-12 watersheds. Using this data, a software application can be used to query water and other data sets, assemble tables, and create maps that allow for the reviewer to focus their efforts on analysis of the data, and not simply searching for data to analyze. This contribution has significantly improved productivity within DMP. The GIS staff is also making custom maps, training staff, assisting with the preparation of CHIAs, and resolving all other GIS needs as they arise.

During EY 2012, the GeoMine project grant has provided for the hiring of a total of five interns. These interns have been pulling paper copies of MRP maps from the permit files; scanning the maps; geo-referencing the maps; and digitizing the permit boundaries. To date, the interns have completed digitizing 1,185 permanent program permits and 41 bond forfeiture permits. KYDNR reported that they are current with permanent program permits. The GIS team is working on the backlog of bond forfeitures and bond releases. Approximately 5,000 bond release and forfeited permits will be retrieved from the archive to be scanned, geo-referenced and digitized.

The GIS section has also been working on Abandoned Mined Land (AML) data. KYDNR interns worked in the AML office to extract Project Unit (PU) files and scan individual Project Area Descriptions (PAD) maps, and the accompanying data within each PU. They currently have scanned and geo-referenced a total of 910 PADs including the maps.

The GIS section reports that they have scanned and geo-referenced a total of:

1. 37,735 permitted fills, and
2. 18,699 permitted boundaries (17,572 surface operations and 1,127 underground operations of which: 2,786 are active, 10,816 are inactive or released, 686 are transfers, and 4,411 are prelaw operations).

10. Technical Innovation and Professional Services (TIPS)

KYDNR is responsible for inspecting all surface and underground coal mining permits within the State to assure compliance with SMCRA. The State utilizes different resources and especially TIPS in an ongoing effort to become more efficient.

On October 1, 1987, OSM began distributing computer hardware and software to the States, Indian tribes, and OSM offices in coal-producing states, to meet technical and programmatic needs to support decision-making processes that result in objective decisions that are based on scientifically sound data. OSM created the TIPS Technical Task Force on February 26, 1988, and delegated authority to TIPS to meet this nationally important agency objective. On July 22, 1991, OSM issued Directive INF-12 to provide guidance for TIPS.

TIPS continues the original goal, started in 1987, of providing specialized hardware, scientific software, customized software training, and technical assistance to its user community. This enhances the technical skills of States, Tribes, and OSM staff by providing them with equipment, training, and the expertise necessary to use it.

TIPS also provides software and licenses to run them as well. To support the number of software users that KYDNR has would be a tremendous financial strain on the State, so TIPS supplies access to software that otherwise may not be available. However, KYDNR maintains much of the TIPS software that its staff uses on a day to day basis. There are over 300 State employees who use over 30 software packages offered by TIPS. GIS and AutoCad software packages are the most common programs used by KYDNR. TIPS, through service managers in each of the field and regional offices, ensures that updates and new releases of software are provided to the State to keep the software current and error free. During EY 2011, there have been four software updates provided to KYDNR. These updates allow users to have fully functioning software and equipment in the office and in the field.

KYDNR has utilized TIPS for equipment, hardware, and software applications that assist the employees with many of its day-to-day functions. One initiative that KYDNR participates in is the “Seeding Technology” initiative. This initiative enables TIPS to make technology available to the State to assess the benefits of the supplied equipment to the program. TIPS continues to make technology, and the expertise needed to operate the new technology, available to KYDNR employees as needs are identified.

11. Cultural and Historic Resources

The DMP reviewed 822 coal mine applications (new, amendment, and revision applications) and 312 exploration notices for cultural and archeological resources in CY 2011. Of these applications, DMP required 76 of the operators to conduct a Phase I cultural and archeological resources survey. This was coordinated with the State Historic Preservation Officer (SHPO). In addition to requiring new Phase I surveys, DMP also received 65 surveys during CY 2011 that identified 71 potential cultural and archeological resource sites. DMP worked on a total of 85 cultural and archaeological resource sites

during CY 2011 that included 14 from the previous year and the 71 included during the current year.

Six sites required a more detailed cultural and archeological resource survey, known as a Phase II survey. The six sites were evaluated to determine if they were eligible for listing in the National Register of Historic Places. One was determined to be eligible, two were found to be not eligible, and three were still pending at the end of CY 2011. KYDNR and the SHPO required the permittee avoid the site that was determined eligible for listing in the National Register of Historic Places. In lieu of a Phase II survey, four archeological sites were buffered and avoided by the permittee.

In another project under the direction of the SHPO and KYDNR, the human remains and other archaeological materials recovered from a cemetery were reinterred on nearby land owned by a coal company during the CY. Because the cemetery could not be avoided by mining; the company was required to excavate the graves. Cultural Resource Analysts, Inc., of Lexington, Kentucky removed the graves during the period of September through November, 2009. The cemetery contained the graves of 57 individuals, buried between circa 1871 through the 1940s. As part of the reburial process, the coal company recreated the pattern of distribution of graves in the cemetery identified through archaeological investigation.

In conclusion, KYDNR is consulting with the SHPO to meet the SMCRA Cultural and Historic resources requirements.

VI. National Priority and General Oversight Reviews

A. National Priority Reviews

One method that OSM uses to effectively implement its oversight strategies is to identify and evaluate National Priority Reviews of specific topics of concern. During EY 2010, OSM selected two topics for National Priority Review. These were Approximate Original Contour (AOC) and Determination of Required Bond Amounts. The final reports were completed in EY 2011. Both reports can be reviewed on the OSM website at <http://www.arcc.osmre.gov/fos/lfo/ky/ts/ky-ts.shtm>. A summary of these reports is as follows:

1. Approximate Original Contour (AOC)

The focus of this evaluation was the implementation of KYDNR's program requirements for AOC where active surface coal mining is taking place. The AOC study was initiated as a National Priority Review in 2007. The action plan developed to implement changes to the State program required additional information to be submitted during the permitting process that would more accurately represent the post-mining configuration.

EY 2012 OSM & KYDNR Joint Validation Study: Upon KYDNR's completion of the AOC action plan, OSM and KYDNR jointly inspected or verified that remedial measures had taken place at the eight permits during the 2012 evaluation year. As part of the validation process, OSM and KYDNR also conducted "follow-up" site inspections on the three permits that performed additional backfilling and grading to satisfy the approved post mining configuration. As a result of the OSM verification and field inspection, there are no remaining AOC programmatic issues.

2. Determination of Required Bond Amounts

The focus of the evaluation was a review of bonds using OSM "Handbook for Calculation of Reclamation Bond Amounts" (OSM Bonding Handbook) and evaluation of whether forfeiture sites are being reclaimed in accordance with the reclamation plan in the approved permit. The result of this National Priority Review is that a 733 letter was sent to the State to require improvements to their bonding system.

B. General Oversight Topic Reviews

OSM's initiative to improve oversight includes emphasizing the need to conduct more OSM oversight inspections. In EY 2012, LFO conducted 576 oversight inspections, a six percent increase from the 545 inspections conducted in EY 2011; a 22 percent increase from the 470 inspections conducted in EY 2010; and a 77 percent increase from the 326 inspections conducted in EY 2009.

During EY 2012, LFO conducted 576 oversight-related inspections: 40 of these were comprehensive independent inspections conducted separately by LFO inspectors, 384 were comprehensive random sample inspections with KYDNR inspectors, 23 were Phase III bond release inspections conducted jointly with KYDNR personnel, 70 field inspections resulting from special studies outlined in the EY 2012 Performance Agreement, and the remaining 59 inspections were flyrock investigations (4), acid mine drainage (9), citizen complaint inspections (19) and other oversight or State assisted inspections (27).

LFO issued 14 Ten-Day Notices (TDN) during the EY. These 14 TDNs contained a total of 48 alleged violations $\frac{3}{4}$ 12 of the TDNs were the result of citizen complaints and two TDNs were the result of comprehensive oversight inspections. All 14 TDNs were satisfactorily resolved with the determination that KYDNR had either taken appropriate action or shown good cause for not taking action on the violations.

During the EY, three citizens requested informal reviews by the Appalachian Regional Director (RD) of the Lexington Field Office's determination regarding their citizen complaint. The first informal review complaint involved an alleged air pollution (dust) violation. The RD upheld the Field Office decision that KYDNR showed good cause for not taking action on the alleged violation. The second informal review complaint involved slides and pumping water off permit. The RD reversed the Field Office's decision that KYDNR had taken appropriate action and shown good cause for not taking action on the

violations. The RD requested a federal inspection. LFO's followup inspection found that KYDNR had appropriately cited all violations. The final informal review complaint involved flooding. This informal review was pending at the end of the EY.

Below are highlights of the oversight studies completed in EY 2012.

1. Budget and Staffing

On September 6, 2011, the FY 2011 A&E grant, which presently funds the regulatory program, was awarded for \$12,431,861. This amount represents a reduction of \$1,870,000 from previous FY 2011 estimates because of KYDNR's inability to match the FY 2008 through FY 2010 A & E grants. The FY 2011 A&E grant supports 301 positions. The regulatory program is 50 percent Federally-funded, except for the \$1,374,140 that Kentucky received to administer the Federal Lands Program. The Federal Lands Program is 100 percent Federally-funded.

Kentucky's Office of the State Budget Director reported that the State's General Fund receipts rose for the second consecutive year following earlier declines due to the national recession. Receipts for Kentucky's FY 2012, ending on June 30, 2012, were 3.8 percent higher than Kentucky's FY 2011 collections which had also shown a 6.5 percent increase over the previous year. While this resulted in excess receipts over what had been projected, it did not translate into additional funds being allocated to the State's mining regulatory program for Kentucky's FY 2013 (July 1, 2012 through June 30, 2013). While the biennial budget, passed earlier this year by the 2012 General Assembly, spared the mining program the most severe cuts felt by most state agencies, the program received a reduction in its budget because of a failure to provide sufficient funds to fill all staff vacancies. The inability of the State to completely fund the matching of allocated grant funds continued through this cycle even though the grant request had been substantially reduced.

On May 24, 2011, KYDNR de-obligated \$600,000 from the FY 2010 A & E grant because KYDNR could not match their 50 percent of the Federal grant. KYDNR also de-obligated \$1,232,893 and \$485,168 at the end of the FY 2010 fiscal year. This will bring the total de-obligation for FY 2010 A & E grant to \$2,318,061. KYDNR has attempted to lessen the impacts of not being able to match Federal funds on the inspection and enforcement regulatory program. KYDNR has reduced the impact by not replacing vehicles, reducing contracts, cutting back on travel and eliminating computer hardware expenditures. KYDNR personnel were also required to take six furlough days without pay, during KYDNR's FY 2011 budget, thereby reducing overall personnel costs that also could not be matched. In June 2012, KYDNR initiated the de-obligation of \$650,000 from the FY 2011 A & E grant. In a Federal Register notice dated July, 31 1998, (63 FR 40825), OSM and KYDNR agreed to field inspector staffing levels of one field inspector per 24 inspectable units (permits). During EY 2009, due to a large number of vacancies, DMRE saw their inspector staffing level rise to one field inspector per 32 inspectable units, which was a significant increase in inspector workload from previous years. As of the middle of EY 2011, DMRE had managed to fill some vacancies and reduce the inspector workload to one field inspector per 26 inspectable units. This ratio has increased to one field inspector per 27 inspectable units.

through the middle of EY 2012. KYDNR reported that they had hired four more inspectors since January 1, 2012 to replace existing vacancies and help improve the inspection workload. At the end of EY 2012, KYDNR reported a ratio of one field inspector per 27 inspectable units.

The Division of Mine Reclamation and Enforcement (DMRE) Vacancies and Funding: KYDNR has been forced by continued shortfalls in State revenue to significantly reduce budget and staffing levels. This has been compounded by the increase in State employee retirements in 2008. As of January 2009, there were 88 vacancies within KYDNR. The majority of the vacancies were in the DMRE, where there were 36 vacancies. The majority of the vacancies were the result of the retirement changes in State government. As of January 1, 2010, DMRE reduced the number of vacancies to 29. As of June 30, 2011, DMRE has continued to reduce the vacancies to 14. DMRE began this FY (July 1, 2011) with an authorized a staff level of 180 full-time employees. In late 2011, the Agency absorbed a two percent reduction in general funds which reduced their staffing authorization to 175. The Governor's budget for KYDNR in FY 2013 reduces their authorized staffing level to 167. As of June 30, 2012, DMRE is at their actual staffing budget level of 167.

It is imperative that the present budgeting levels be increased in order to continue positive trends in inspector workload and inspection frequency. A reduction in budget and staffing levels for inspection and enforcement would have negative impacts on the State's ability to carry out the mandated provisions of SMCRA. This includes the inspector staffing levels agreed to in the Federal Register notice (63 FR 40825). LFO is closely monitoring the budget and staffing issues and will develop recommendations for actions, as appropriate.

The Inspection Staffing and Inspection Frequency Report can be reviewed in detail on the OSM website at <http://www.arcc.osmre.gov/fos/lfo/ky/kyoversight.shtm>; click on ODOCS; Kentucky, evaluation year 2012, and category *Topic Specific Oversight Reports*.

The Division of Mine Permits (DMP) Vacancies and Funding: The Kentucky General Assembly passed a two-year budget on June 4, 2010, for Kentucky's FY 2011 and FY 2012, which became effective on July 1, 2010. The decrease in General Fund appropriations to these programs reflects a continuing problem of declining revenue available to KYDNR. Because the state increased permit application fees in 2010 that generated funds specifically for DMP the effect was not as great as experienced by DMRE. As of June 30, 2012, DMP had a budget cap for staff of 98 with 95 positions filled.

2. Comprehensive Random Sample Inspections

The oversight format of LFO provides for a general assessment through random oversight inspections. The purpose of these inspections is to evaluate the degree of industry compliance with the approved State program. The vast majority of oversight inspections are conducted jointly, in which the KYDNR inspector accompanies OSM staff on the inspection. These are known as comprehensive random sample inspections. However,

OSM also conducted independent, unannounced oversight inspections, which validate and enhance the credibility of both Kentucky regulatory programs and OSM's oversight. These inspections are known as comprehensive independent random sample inspections.

During EY 2012, LFO conducted 384 comprehensive random inspections and 40 comprehensive independent random sample inspections. All 424 random samples were selected from the list of active and Phase I bond released permits on both surface and underground coal mining operations.

One hundred and twenty-six (30 percent) of the permits inspected were in violation, with 461 total violations observed. Sixty-five (15 percent) permits had new violations, which KYDNR cited. Seventy-nine (19 percent) of the permits had violations that KYDNR had previously cited. Fourteen (three percent) of the permits had violations that were abated during the oversight inspection. Seventy-six (18 percent) of the permits had violations that caused off-site impacts. OSM issued one TDN on the 424 comprehensive random inspections for EY 2012. KYDNR took appropriate action to resolve the TDN.

LFO further analyzed these violations by type of inspection, i.e., comprehensive random inspections and comprehensive independent random inspections, to determine if there was a difference in the nature or frequency of violation citation between the two types of comprehensive inspections. As the following table depicts, there is no statistical difference between violations observed or cited during random or independent inspections. Similarly, there is no difference in observed off-site impacts.

Violation Characterization (percent of Total)	Comprehensive Random Inspections	Comprehensive Independent Inspection	Combined Total
Total Violations Observed	427	34	461
New Violations	134 (31%)	16 (47%)	150 (32.5%)
Previously Cited Violations	279 (65%)	15 (44%)	294 (64%)
Abated During Inspection	12 (3%)	3 (9%)	15 (3%)
TDNs Violations issued	2 (1%)	0 (0%)	2 (0.5%)
Violations with Off-Site Impacts	134 (31%)	11 (32%)	145 (31%)

Table listing the type and results of the oversight inspections

LFO also analyzed the most often cited performance standard (hydrologic balance, permit administration, and backfilling and grading) for the 424 violations observed during comprehensive oversight inspections. Since EY 2005, these same three performance standards were the most frequently cited.

Data collected for seriousness and type of off-site impacts was compared between comprehensive random and independent inspections. Similar to the observed violations, there were no significant differences seen between that observed during comprehensive

random and comprehensive independent inspections. The following tables detail these findings.

Degree of Off-site Impact (Percent of Total)	Comprehensive Random Inspections	Comprehensive Independent Inspection	Combined Total
Minor	55 (41%)	1 (9%)	56 (38.5%)
Moderate	62 (46%)	7 (64%)	69 (47.5%)
Major	17 (13%)	3 (27%)	20 (14%)

Table listing the seriousness and type of off-site impacts for all inspections

Type Impact (Percent Of Total)	Comprehensive Random Inspections	Comprehensive Independent Inspection	Combined Total
Land	73 (54%)	7 (64%)	80 (55%)
Water	58 (43%)	4 (36%)	62 (43%)
People	2 (2%)	0 (0%)	2 (1.5%)
Structures	1 (1%)	0 (0%)	1 (0.5%)

Table listing the breakdown on the effects on land, water, people, and structures

In summary, LFO found little difference between the number or nature of violations observed during comprehensive random inspections and comprehensive independent inspections. Independent comprehensive inspections served the purpose of validating the integrity of the joint comprehensive random sample inspections.

3. Industry Compliance

As part of the yearly evaluation, LFO tracks industry compliance. Industry compliance is the percent of OSM and KYDNR joint random inspections with no observed violations compared to the total number of OSM and KYDNR joint random inspections. For EY 2012, OSM found that 298 of the 424 (70.3 percent) permits in Kentucky were in full compliance with all performance standard categories. The chart below identifies the trends for industry compliance over the past twenty-plus years.



Figure showing the history of industry compliance

Industry compliance has improved slightly from 65 percent in EY 2010 to 70 percent in EY 2011 and is the same for EY 2012. KYDNR experienced a significant compliance drop that occurred between EY 2008 through EY 2010. Since 2010 industry compliance has risen gradually. The last time that industry compliance was that low was EY 1990's.

4. EY 2012 Bond Forfeiture Report

Bond forfeitures have been studied on an annual basis since EY 2007. The prior studies identified concerns regarding the adequacy of bond amounts and supplemental assurance, the lack of assurance that acid mine drainage (AMD) discharges would be treated, and the timeliness of enforcement/legal actions.

This EY's follow-up studies evaluated all of the permanent program bond forfeitures (15 permits) occurring during EY 2011. The study found:

- The study found that twelve (12) of the fifteen (15) permits did not have sufficient bond to reclaim the permit to permanent program standards.
- When evaluating bond sufficiency using the bond amount for each forfeited increment, 30 of 45 forfeited increments did not have sufficient bond to reclaim the increment to permanent program standards.
- On average in EY 2011, forfeited increments were under bonded by \$46,263.
- No issues with supplemental bonding assurance were identified.
- No issues relating to timeliness of enforcement were identified.

- An increase was recorded in EY 2008 (12 forfeitures), EY 2009 (22 forfeitures), EY 2010 (22 forfeitures) and a 32 percent decrease in EY 2011 (15 forfeitures) over EY 2012. KYDNR advised that the higher number of forfeitures is attributed to an expedited administrative process they implemented.
- The increased number of forfeitures in the last three evaluation years has impacted the number of sites awaiting reclamation. That number has increased from a low in EY 2009 of 60 sites to 78 sites in EY 2011.

OSM will continue the bond forfeiture special study in EY 2013 for permanent program bond forfeitures occurring in EY 2012. OSM continues to work closely with the KYDNR to resolve the bonding issue to make sure that every surface mining bond is sufficient to ensure full reclamation; avoiding the creation of additional forfeitures where possible; avoiding destabilizing the surface coal mining bond market; and maintaining KYDNR's viability as a primacy program.

Evaluation Year	Report Date	Number of Forfeitures	Findings	Comments
EY 2008	09/2007	5 – EY 2006	4 inadequate	Minnehan and AMD -Small sample
EY 2009	01/2009	5 – EY 2007	2 inadequate	Surety bankruptcy on one permit – Small sample
EY 2010	02/2010	12 – EY 2008	10 inadequate	Recommended KYDNR re-evaluate bond computation process
EY 2011	11/2010	22 -EY 2009	17 inadequate	Recommended KYDNR continue initiative (work group) to revise bonding protocols
EY 2011	03/2011	22 -EY 2010	18 inadequate	Integrate with Bond Inadequacy Action Plan
EY 2012	06/2012	15- EY 2011	12 inadequate	Continue study in EY 2013

Table listing the results of bond adequacy to reclaim forfeited sites

5. Inspection Frequency

Inspection frequency is based on 405 KAR 12:010, Section 3(5). This provision requires KYDNR to conduct one complete and two partial inspections per calendar quarter for all active mine sites (permits that have not achieved Phase I or Phase II bond release). Inactive mine sites (permits with Phase I or II bond release or in temporary cessation) require one complete inspection per quarter. Abandoned sites (permits in bond forfeiture) also require

one complete inspection per quarter. KYDNR reported the following inspection numbers for this EY:

Coal Mines and Facilities	Number of Complete Inspections	Number of Partial Inspections
Active	7,416	14,644
Inactive	251	13
Abandoned	26	21
Total	7,963	14,795

Table showing the breakdown in the inspection statistics for active, inactive and abandoned sites

The following chart shows frequency calculations based on the above inspection numbers:

Number of Permits Requiring Inspections	1,850
Number of inspections conducted	22,488
Number of Permits Meeting Frequency	1,623
Percentage of permits meeting frequency	87.7%

Table showing the calculation of the inspection frequency

For the 12-month period in EY 2012, KYDNR met inspection frequency on 88 percent of inspectable units. As can be seen in the following chart, this is an improvement from the downward trend seen between EY 2009 and EY 2011. The drop from 97 percent in EY 2008 to 83 percent in EY 2009 was a predictable result of the significant budget shortfall that continues to impact KYDNR's ability to backfill and maintain the vacancies created by the high number of retiring inspectors.

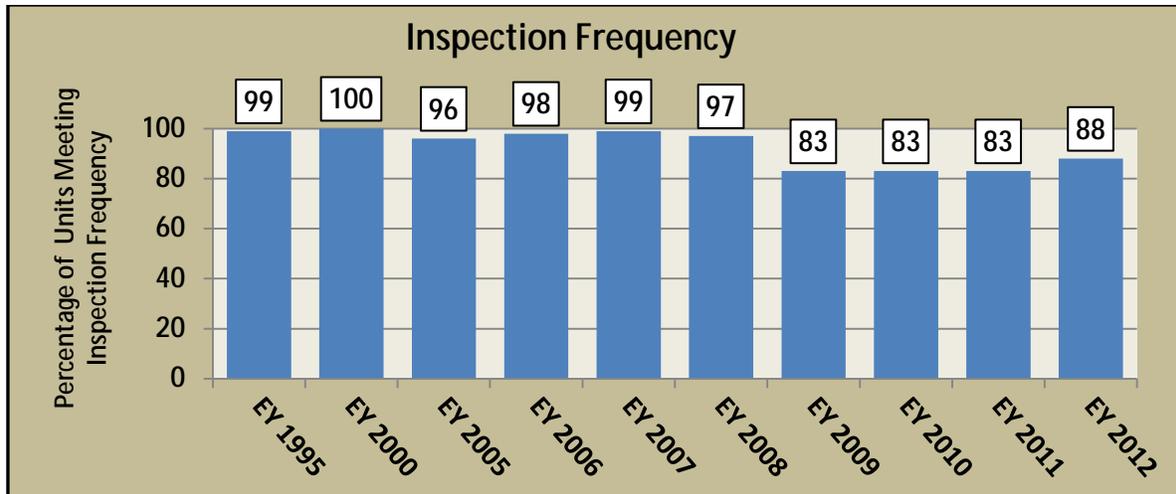


Chart showing the inspection frequency for the period 1995 – 2012

Inspection frequency is also tracked quarterly by KYDNR. The quarterly results are that for the first quarter (July 1, 2011 – September 30, 2011) KYDNR met inspection frequency on 94.7 percent of the inspectable units; the second quarter (October 1, 2011 – December 31, 2011) KYDNR met inspection frequency on 92.8 percent of the inspectable units; the third quarter (January 1, 2012 – March 31, 2012) KYDNR met inspection frequency on 96.8 percent of the inspectable units; and the fourth quarter (April 1, 2012 – June 30, 2012) KYDNR met inspection frequency on 99.6 percent of the inspectable units. It should be noted that the cumulative EY inspection frequency percentage for the first six months of EY 2012 was reported at 88.6 percent; and for the entire EY 2012 at 87.7 percent.

The fourth quarter statistics for EY 2012 shows a dramatic inspection frequency improvement both for the quarter and the overall evaluation year. From the third to the fourth quarter, the number of missed complete inspections decreased from 45 to five (5) and the number of missed partial inspections decreased from 15 to three (3).

There are three primary reasons for the improvement:

- 1) The importance of meeting frequency requirements was emphasized during a field staff meeting in April 2012. Regional managers were directed to make every effort to ensure their respective inspection staffs were aware of frequency requirements, and that workloads were being managed effectively.
- 2) During the last six months of EY 2012, the coal industry has experienced a dramatic decline in production due to market conditions and other issues. This decline has resulted in fewer active mine sites, therefore decreasing demand on inspectors' time required for citing and processing enforcement actions, citizen's requests for inspections (a 27 percent decrease), and other activities which often affect the inspector's ability to meet frequency.
- 3) Throughout EY 2012, additional inspection workloads were assumed by other enforcement staff, such as section supervisors and bond release specialists, to

compensate for a decrease in funded full time inspection staff. It should be noted, however, this is not a permanent solution to meeting inspection frequency requirements.

6. Flyrock Events

There were three (3) flyrock events during this EY. This represents an improvement over the EY 2011 performance and continues the positive trend of reductions in flyrock events recorded for the period EY 2009 through EY 2012. The table below contains the data exhibiting the general downward trend.

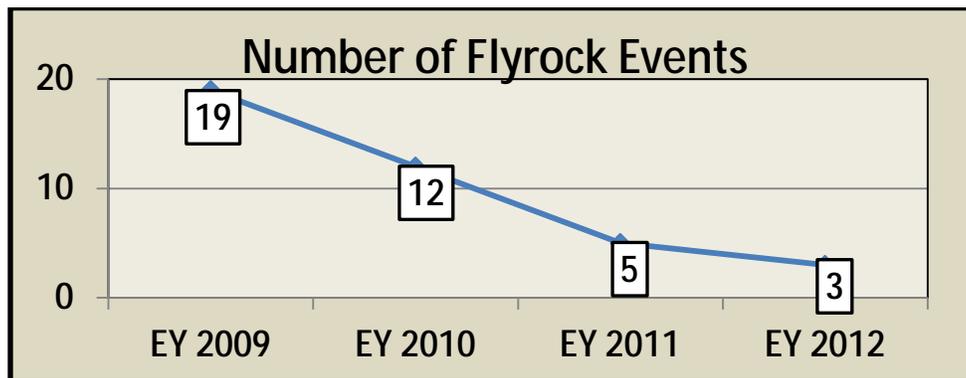


Chart showing the reduction in flyrock incidents in the last four EYs

During EY 2012, two (2) of the flyrock events either directly or nearly impacted residential structures. KYDNR and LFO rate flyrock as the most serious and troubling off-site impact in the state and continue to make blasting enforcement, training, and special studies a top priority to reduce adverse effects of blasting. Every flyrock event is jointly investigated by KYDNR and LFO.

Kentucky's new blaster training bill (HB 268) went into effect on July 15, 2010, increased the training requirements for blaster license renewal from 16-hours of approved training every three years to 8-hours of approved training annually throughout the three year renewal cycle. At least four hours of this annual training is to be in a classroom setting as opposed to the larger conference type of proceedings, thereby promoting more personalized training and class participation.

KYDNR and LFO are continuing a blasting special study that focused on analysis of actual on-the-ground impacts including a review of the mine site's entire blasting program. This evaluation year, one mine site blasting event was reviewed in each of the five KYDNR regional offices. All aspects of the blasting plan including the impacts of an actual blast were reviewed by the combined KYDNR and LFO staff. These targeted studies are part of the continuing effort by KYDNR and LFO to decrease flyrock events and other blasting issues through increased enforcement, training, and standards for certification of blasters.

7. Acid Mine Drainage Active Inventory

The AMD Active Inventory is a part of the Long-Term Effluent Treatment Policy that addresses permit issues related to water quality problems after mining has commenced. It also helps establish a procedure for reporting, monitoring, and removing permits from the inventory. The inventory is routinely updated and is made available to the staff in the permitting section (DMP), inspection and enforcement (DMRE), and abandoned mine land reclamation (KYDAML) sections of the KYDNR. LFO also has access to the AMD inventory and evaluates the activity annually.

LFO, working jointly with KYDNR, has developed and maintained a data table and basic GIS map of the inventory. An AMD-producing site may be removed from the active list if AMD production ceases after reclamation is completed. A site can only be removed from the active list if the pond inflow, sampled before any treatment, meets applicable effluent limits established for pH, iron, manganese, etc., for 12 consecutive months. Before the permit is removed from the list, LFO inspectors confirm the results of the 12-month water quality monitoring provided by the permittee. Once removed from the active AMD inventory list, it is added to the historic AMD inventory where it remains for the duration.

During this EY, no permits were added to the list, three permits were recommended for removal; and three were deleted from the list. Currently, there are 87 permits on the active AMD inventory and 236 permits on the historic inventory list for Kentucky.

8. Fill Inventory

The Lexington Field Office (LFO) and the KYDNR have collected information on the size and location of excess spoil disposal fills for all new permits, amendments, and major revisions issued since CY 1999. This includes both newly permitted fills and existing permitted fills. OSM and KYDNR use the data to track and evaluate the total number and size of fills permitted from year to year. The graphs below shows the total number of fills permitted every year since CY 1999.

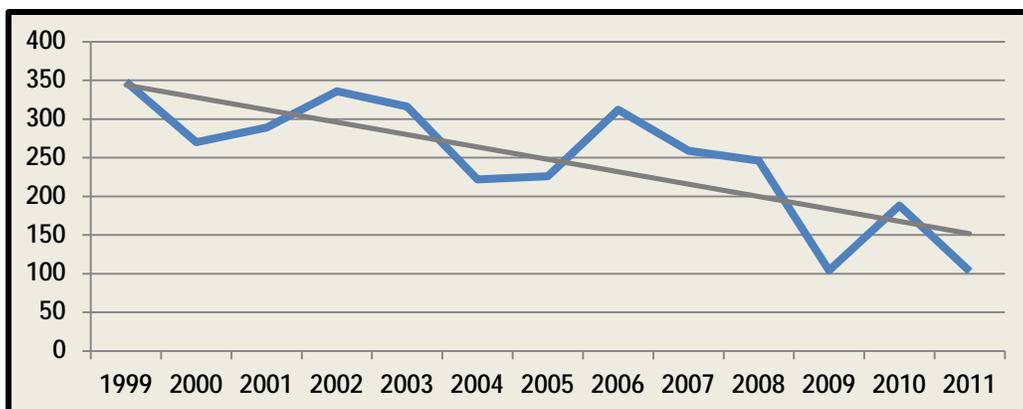


Chart showing the number of fills from CY 1999 through CY 2011

The figure above shows a steady decline in the number of fills permitted over the years from a high in CY 1999 of 348 to a low in CY 2011 of 103. There are numerous possible factors that may have contributed to this decline. For example, new regulations and the volatility of the coal market could very well have affected this number. However, from this data it is unclear which of these factors or a combination of factors has led to this decline.

KYDNR issued 244 permitting actions (65 new permits, 115 amendments, and 64 major revisions) in CY 2011 involving surface, underground, or other mining operations. LFO and KYDNR found 47 permitting actions that contained information on 103 proposed fills. The other 197 permitting actions did not involve fills. Information gathered on each of the fills is contained within the Kentucky Fill Inventory report which can be found at:

<http://www.arcc.osmre.gov/FOs/LFO/KY/kyoversight.shtm>.

9. Evaluation of Sites with COE Permit Applications

One KYDNR surface mine operation caused significant off-site impacts as a result of the downslope failure of excess spoil material placed above the outcrop areas. The volume of the excess spoil overstacked on the backfilled areas was not permitted by KYDNR and was unlawfully done by the company. The company had pursued a COE permit for the disposal of the spoil but had not received the necessary approvals to dispose of their material. The overstacked spoil placement became unstable during wet conditions and resulted in numerous slides that threatened several residences in the area. Based on this failure, LFO conducted a review and inspection of a total of 44 permits which had applied for a 404 permit from the COE. These inspections were conducted with the assigned inspectors from the DMRE. The list of permits was supplied by KYDNR. The goal of the inspection was to determine the on the ground status for the areas and activities that would be covered by the required COE permits. The results of these inspections were placed in one of the following five categories:

COE Permit Issued – The area covered by the COE permit had actually received a COE permit to proceed.

Violations Issued – Violations were issued for permits operating in an area where a COE permit is required but had not been issued.

Non-jurisdictional Waters – The area disturbed or proposed to be disturbed by the companies were not within jurisdictional waters as determined by the COE.

Alternate Disposal Site Utilized – Spoil placement occurred on alternate spoil disposal areas instead of the area covered by the COE permit.

Not Disturbed – The area covered by the COE permit was not disturbed by the company.

LFO evaluated the 44 permits using the previous described categories and determined the in that the majority of the operators were complying with the requirement to not disturb the COE permit application area without first obtaining a permit. There were a few of the operators that were cited for various reasons.

Category	Number	Percent Total
COE Permit Issuance	3	6.8
Violations Issued	7	15.9
Non-Jurisdictional Waters	4	9.1
Alternate Disposal Site Utilized	7	15.9
Not Disturbed	23	52.3

Table showing breakdown in operator's actions

Better than half (52 percent) of the operators had not disturbed the area where the proposed COE permit was located. The next two categories with the same percentage (16 percent) represented significantly different alternatives. One set of operators chose to use alternative disposal sites while the other group was written violations for disturbing the area without the necessary COE permit. A group representing 7 percent of the permits were operating in areas outside of the jurisdictional waters as established by the COE. The last and smallest group was those operators that were granted COE permits.

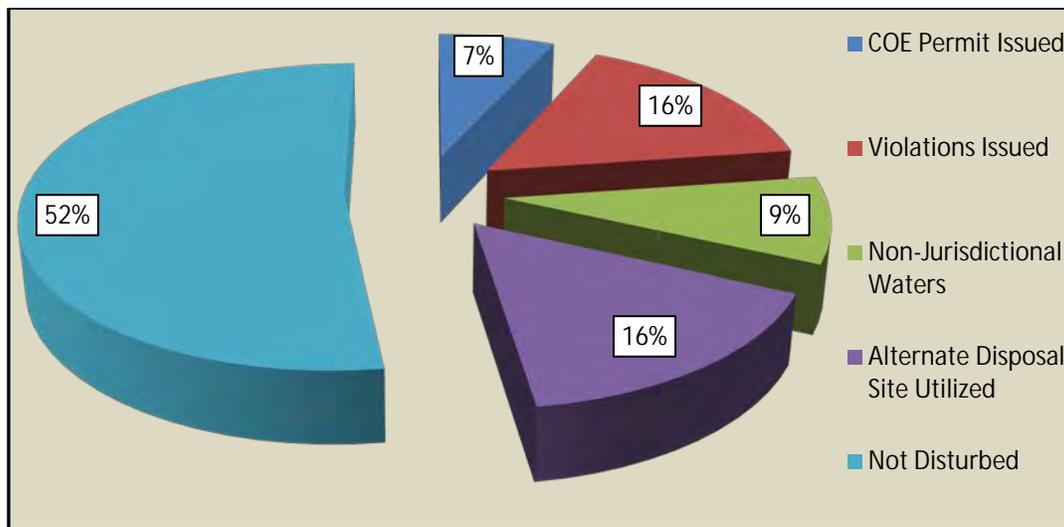
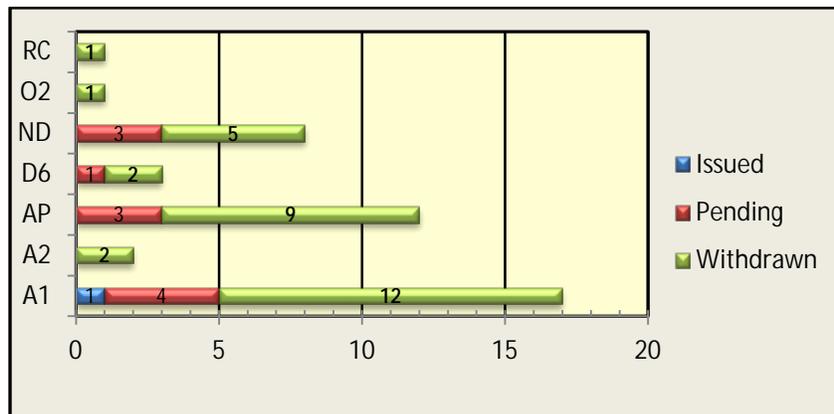


Chart showing the percentage breakdown in operator's actions

LFO also evaluated the COE permit status and found that approximately 73 percent of the requested applications for COE permits were withdrawn by the applicant. About 25 percent were still pending in the application review process with only 2.3 percent or one permit being issued. The data were further parsed by mining status to indicate the following. Of the 73 percent of the permits withdrawn, most of the mine sites were active mining operations producing coal as evidenced by SMIS codes A1, A2, and AP. The pending permits are mostly in the same status codes of A1 and AP. There are three permits that are still pending in the COE permitting process that have not been disturbed. One permit was issued that was used by the mine operator. The other two permits that showed as having issued COE permits were both withdrawn.



Status of mining operations related to COE permit status

VII. Regulatory Program Problems and Issues

A. Action Plans

Two Action Plans continued in EY 2012 that started in EY 2011. The first was an Approximate Original Contour (AOC) Action Plan and the second is the Determination of Required Bond Amounts Action Plan. A discussion of each Action Plan and associated report is found in section VI. A. *National Priority and General Oversight Topic Reviews* of this annual report. The full reports and Action Plan can be reviewed by visiting the OSM website at: <http://www.arcc.osmre.gov/fos/lfo/ky/kyoversight.shtm>; click on ODOCS; type in Kentucky, evaluation year 2011, and category “Action Plans”. A description of, and the status of, these action plans follows:

1. Approximate Original Contour Action Plan

During EY 2011, KYDNR addressed all issues in the AOC Action Plan. OSM and KYDNR jointly inspected or verified that remedial measures had taken place at the eight permits during the 2012 evaluation year. As part of the verification process, OSM and KYDNR also conducted “follow-up” site inspections on the three permits that performed additional backfilling and grading to satisfy the approved post mining configuration. As a result of the OSM verification and field inspection, there are no remaining AOC programmatic issues. Based on KYDNR’s successful completion of all the steps in the action plan, LFO concludes that KYDNR has successfully fulfilled their responsibilities under the plan. In a letter dated July 11, 2012, Lexington Field Office notified KYDNR that the AOC action plan was completed.

2. Determination of Required Bond Amounts Action Plan

OSM oversight and programmatic reviews have identified that mine reclamation performance bonds in Kentucky are not always sufficient to complete the reclamation

required in the approved regulatory program. OSM has studied bond forfeitures in Kentucky on an annual basis for several years. The last five studies found that 78 percent (63 of 81) of forfeited permits did not have sufficient bond to complete reclamation to permit standards.

On February 3, 2011, OSM and KYDNR signed an *“Action Plan for Improving the Adequacy of Kentucky Performance Bond Amounts”* to timely and effectively resolve these issues. On January 17, 2012, OSM responded by letter to KYDNR and included the final Bond Team Report. OSM found that, while the revised protocols were an improvement over the current method of bond calculations, they did not result in the calculation of performance bonds sufficient to complete reclamation to permanent program and permit standards should forfeiture occur.

On February 9, 2012, Kentucky responded to OSM by advising that the State was pursuing a course of action to remedy the issue by promulgating a regulatory package that includes a bond pool. This legislation will be prepared for submittal to the Kentucky General Assembly for the 2013 session. On March 23, 2012, in a meeting with the OSM Director, OSM advised Kentucky that their proposal lacks specificity; any immediate action steps to address the situation; and a commitment to a specific timeline to ensure that the inadequacies will be fully addressed in a timely and realistic manner.

On May 1, 2012, the OSM Director sent a letter to Kentucky initiating the Part 733 process. The process will allow Kentucky the opportunity to correct its bonding program deficiencies. On May 7, 2012, OSM received emergency regulations signed by Governor Beshear. Kentucky is promulgating these emergency regulations effective immediately in order to take a proactive step to avoid possible loss of part of the Kentucky Program and loss of funding for the AML program. Kentucky’s emergency regulations were effective immediately and will be applied to all new permits, major revisions, mid-terms and renewals. During May 2012, KYDNR also began recalculating the bond during the mid-term review process.

On June 4, 2012, the Secretary, Kentucky EEC, responded on behalf of the Department of Natural Resources to OSM on the 733 letter. In the letter, the Secretary identified Kentucky’s plan (phase one) for corrective action and requested an informal conference with OSM to discuss the plans for resolution and proposed timetable for implementation. The Secretary also stated that in the second phase the State would hire a contractor to develop a bond pool. The initial step in that process was completed when KYDNR selected a firm to complete an actuarial study. Approval by the Division of Finance is expected in July 2012. The report is scheduled for completion on or before November 2012.

Kentucky is actively drafting necessary regulations and statutory changes to submit to the Kentucky General Assembly in January 2013 to implement the bond pool. An informal hearing is planned on August 8, 2012.

VIII. OSM Assistance

A. Grants

During the EY, OSM awarded over \$55 million to KYDNR to fund the Title IV AML and Title V A&E Regulatory Programs. The grant cycle for AML begins on July 1st, and the A&E grant cycle begins on September 1st, of each CY. This means the State draws from two separate Federal grant year monies during the EY. For example, the State does not begin drawing its Federal FY 2011 A&E grant money allocation until September 1, 2011. Prior to that time, they operate on FY 2010 money, from July 1 through August 31, 2011. The AML program does draw down the AMD set-aside money soon after the Federal allocation, but does not begin drawing the remainder of the grant allocation until July 1st of the following year. The following narrative details money awarded to KYDNR during the EY.

The AML program received \$44,961,012 to fund 100 percent of the total program cost for EY 2012. This includes \$8,240,000 for the AMD Set-Aside Fund. The AML grant money funds 98 KYDAML positions.

The FY 2011 A&E grant, which funds the regulatory program, was initially awarded for \$12,431,861. This amount represents a reduction of \$1,870,000 from previous FY 2011 estimates because of KYDNR's inability to match the FY 2008 through FY 2010 A & E grants. The grant supports 301 positions. The regulatory program is 50 percent Federally-funded, except for the \$1,374,140 that Kentucky received to administer the Federal Lands Program. The Federal Lands Program is 100 percent Federally-funded.

On May 24, 2011, KYDNR de-obligated \$600,000 from the FY 2010 A & E grant because KYDNR could not match their 50 percent of the Federal grant. KYDNR also de-obligated \$1,232,893 and \$485,168 at the end of the FY 2010 fiscal year. This brought the total de-obligation for FY 2010 A & E grant to \$2,318,061. On May 2, 2012, OSM de-obligated an additional \$488,853 that closed the FY 2011 A & E grant which revised the total funding to \$11,067,629.92. KYDNR has attempted to lessen the impacts of not being able to match Federal funds on the inspection and enforcement regulatory program. KYDNR has not replaced vehicles, reduced contracts, cut back on travel and eliminated computer hardware expenditures. During KYDNR's FY 2011 budget, State personnel were required to take six furlough days without pay, thereby reducing overall personnel costs that also could not be matched. KYDNR initiated the return of \$650,000 to OSM from the FY 2011 A & E grant in June 2012.

In addition to the AML and A&E grant money, OSM also funds applied science projects and other special cooperative agreement projects for various research and regulatory topics related to mining issues. Cooperative Agreements funded this EY include \$64,746 to continue the Kentucky Mine Map Initiative, \$216,160 to support OSM's national initiative GeoMine Coal Mining Digital Data project, and \$151,048 for partial one-time funding of the CHIA trend station lab analysis.

At the end of EY 2012, the following grant funds were initiated, but not yet awarded. These are as follows:

- KYDNR requested funding of \$119,060 to continue the CHIA trend station funding for 133 trend stations for one additional year. OSM is actively working with the Kentucky Coal Industry to provide recurrent funding that KYDNR can use to match the federal grants funds on an annual basis.
- KYDNR requested \$27,000 to hire three additional college interns to assist in CHIA activities.
- KYDNR requested \$15,000 for a CHIA special study (Pigeonroost Project) to determine the cumulative effects of past and present coal mining operations in one watershed.
- KYDNR requested an additional \$192,000 to continue GIS improvements and to support the Geo Mine Project.
- KYDNR requested \$218,650 in civil penalty funds to address a landslide on the Johnson-Floyd project.

OSM continues to provide KYDNR with a student intern to assist them with CHIA data collection, input, and GIS related activities. KYDNR has hired three interns to work on CHIA activities and five interns to work on GIS related activities. OSM funded two AmeriCorps positions in August 2011. Individuals were hired and were assigned to work on both CHIA and GIS projects as directed by KYDNR.

OSM is committed to providing adequate funding and technical assistance to the Kentucky program. KYDNR personnel are encouraged to take advantage of available OSM technical training courses. Regional and LFO technical staff are available to provide support to the Kentucky program when needed. OSM provided technical assistance CHIA's during this evaluation year. During EY 2012, OSM also assisted on technical and enforcement issues associated with an experimental practice in Perry County, Kentucky. In addition, LFO attended two meetings and reviewed an experimental practice proposal Middlefork Coal Company prepared by Dr. Richard Warner at the University of Kentucky. Also, the Appalachian Regional Office provided engineering assistance to KYDNR on a complex citizen complaint alleging that mining contributed to extensive flooding that occurred in May 2009 in Breathitt County, Kentucky.

B. Training Initiative

In the past two evaluation years, KYDNR's training emphasis focused on the many new employees hired by both DMP and DMRE. Though not as frequent, the training continued this year. Types of training that occurred during EY 2012 include:

DMP- The Division held monthly roundtables on technical topics related to permitting issues such as ground and surface water monitoring, written findings, protests, ArcMap, subsidence, probable hydrologic consequences and hydrologic reclamation plans. A group of ten technical and engineering compliance reviewers spent two days in the Western

Kentucky coal field counties of Hopkins, Ohio and Henderson. The group visited active and reclaimed mine sites to gain an on-the-ground perspective of mining operations, enhancing their understanding of the unique conditions associated with mining in the Illinois basin.

Specialized training for the engineering staff included the theoretical background and use of the Geo-Slope finite element software programs for solving groundwater flow (SEEP) and soil stress-strain (SIGMA) problems. The groundwater flow component included saturated and unsaturated flow with example problems addressing confined aquifer and flow through embankment problems. The soil stress-strain component included a stability analysis of a hollow fill and breakthrough of a slurry impoundment into underground works.

DMRE- Each regional office periodically conducts in-house training courses, focusing on field issues, particularly contemporaneous reclamation, surveys for approximate original contour, and topical other issues of concern. Approximately 40 DMRE inspectors attended the various OSM training programs that were offered in a variety of locales. This year, approximately 33 inspectors attended various TIPS training programs that are more oriented towards technical training.

C. Federal Lands

In 1998, the KYDNR entered into an agreement to manage aspects of coal development in Kentucky that were not conveyed under the initial coal management regulations. One of those areas was the regulation and control of surface coal mining operations on Federal lands. While the KYDNR administers the Federal Lands coal program in Kentucky, OSM provides support to KYDNR in managing the coal program by helping federal land managers meet their procedural requirements. OSM is also responsible for making determinations of Valid Existing Rights (VER) for KYDNR's use in issuing of permits with VER issues. There are two Federal agencies most often involved in coal related activities in Kentucky: the U. S. Army Corps of Engineers (COE) manages several parcels of land in Kentucky; and the United States Forest Service (USFS) within the Daniel Boone National Forest.

The COE has several projects in Kentucky that were established to provide for inland navigation, flood-damage reduction, environmental protection and restoration, recreation, water supply, and other public benefits. The lakes in the Kentucky coalfields that are managed by the COE include: Carr Fork, Dewey Lake, Fishtrap Lake, Grayson Lake, Martin's Fork, Paintsville Lake, and Yatesville Lake. Fishtrap Lake and Dewey Lake have the majority of the coal mining activity for the COE.

The DBNF is located along the Cumberland Plateau in the Appalachian foothills of Eastern Kentucky. The forest encompasses over 707,000 acres of mostly rugged terrain. The forest has a multiple use land management philosophy; which allows for activities in recreation and land acquisition; along with timber management and mineral development. The mineral activities that are most prominent are oil, natural gas, and coal mining activities.

In EY 2012, three mining permit applications involving federal lands were submitted to KYDNR. The breakdown of the permit types submitted include: two new permit applications and one amendment to an existing permit. These activities were on COE and USFS lands. There were two permits issued in EY 2012. The permits approved include one new application and one amendment.

Along with supporting Federal land management agencies through the coal permitting process, OSM plays a role by making important determinations regarding coal operations on federal lands. When permit applications are submitted to the State of Kentucky involving Federal lands, there can be two decisions that OSM will make: Valid Existing Rights (VER) Determinations and Compatibility Determinations.

VER determinations pertain to the rights that would allow an operator or property owner to conduct surface coal mining operation on lands where provisions of the law would prohibit those operations. Prohibitions on surface coal mining activities on federal lands are found within the section 522(e) of SMCRA. To make this determination, OSM reviews all pertinent information that is supplied by the operator/property owner; and uses the “Good faith/all permits standard” to review the submitted information. There were no VER determinations in this EY.

Compatibility Determinations are processed under section 522(e)(2) of SMCRA; and include a recommendation from the land management agency on whether the goals and objectives of the Federal interest and the permit application activities are compatible according to the SMCRA definition of compatibility. During the EY, one compatibility determination was completed.

IX. Abandoned Mine Land Reclamation (AMLR)

The Kentucky AMLR program continues to be successful in achieving lasting and effective reclamation of mined lands that eliminates hazards to the public and restores land to beneficial uses. Construction grants continue to fund high priority projects.

During the EY, KYDAML submitted 80 new projects for authorization to proceed during the EY, with a construction budget of totaling \$18.7 million. Nine of the new projects will upgrade and/or extend existing water supply facilities to provide safe domestic water supplies for approximately 1592 new residential customers, installation of approximately 506,122 linear feet of new water line, along with associated features such as pump stations, water tanks, and pressure relief valves at an estimated cost of \$13,085,372. In addition, eight of these projects were AML enhancement rule projects and sixteen other projects were submitted as high priority projects, for which Kentucky requested expedited “authorization to proceed” or ATPs. These high priority projects would likely meet AML emergency project criteria.

KYDAML manages its program in a cost effective and efficient manner. All projects comply with applicable laws and regulations, are well designed and constructed using the

best technology available, are completed with minimal disturbance to the environment, and are well monitored to ensure projects meet contract specifications, project objectives, and program goals.

Since the reauthorization of the Federal AML Fund collection provisions, Kentucky has been planning for the future of its AML program. On its own initiative, Kentucky made changes in its program to implement the reauthorization provisions during EY 2007, which were approved by OSM in EY 2008. In EY 2010, OSM eliminated its Federal Reclamation program which responded to AML Emergency projects. KYDAML now responds to these as high priority projects. They have established an office in Hazard, Kentucky, to place personnel in the field to better respond to the public.



An inspector discusses the stream bed and open limestone channels used to treat water at the Big Branch AML reclamation site.

Prior to FY 2008, KYDAML did not feel its allocation of the AML Fund was large enough to take part in SMCRA's AMD Set-Aside provisions and accomplish other AML reclamation work needed during each year. In FY 2008, KYDAML began participating in the AMD program by requesting the allowable amount each year for deposit in its AMD Fund. Last year, KYDAML reduced its AMD set-aside request from the approximately \$4 million they are eligible for, to \$1 million. KYDAML decided it had to take this action in order to address the workload created by the termination of the Federal AML emergency program. Termination of the OSM program lead to increased project related costs and restructuring of staffing resources. This year, the AMD fund has been increased; KYDAML transferred \$8.2 million from the 2012 grant into the FY 2011 AMD grant fund. This funding will allow KYDAML to proceed with some complex AMD projects after the decrease last year.

A. AML Inventory System (AMLIS)

KYDNR fully supports the direct access to the AMLIS, which allows KYDAML to electronically input AML problem data. KYDAML has been directly updating the AMLIS since the fall of 1995. KYDAML submitted a letter dated July 6, 2004, certifying that they have a system that ensures the accuracy of data they input into the AMLIS. KYDAML

continues to use this system along with current OSM AMLIS guidelines. KYDNR attended the training offered by OSM when the new e-AMLIS came online in early 2011. The e-AMLIS allows Kentucky and local OSM staff to process new AML problems and update existing problems quicker than previously, and in real time.

Kentucky continues to take advantage of the option in the previous AMLIS and now e-AMLIS input programs to scan the physical source documentation into the system. The contents, at a minimum, generally include the written Problem Area Description form, Priority Documentation Forms for each problem type, reclamation estimate sheets, and a location map. OSM's routine review of selected data entered into the AMLIS accurately reflected KYDAML's physical source documentation, which as noted is currently scanned into the AMLIS.

In EY 2012, 68 Problem Areas have been updated or entered into e-AMLIS. When new AML problems are discovered, and as KYDAML is planning their workload, the e-AMLIS database is updated with this new information to identify future project funding needs. However, many updates and changes from the time a project is funded until it is completed can be made. Depending on the severity of the problem, the updates and changes to the e-AMLIS to a project can be ongoing over multiple years. The total costs that have been documented in e-AMLIS in 2012 (including funded projects, unfunded projects and completed projects) were over \$27 million.

B. AML Emergency Program

AML emergency reclamation in Kentucky was administered by OSM until September 30, 2011. This EY, OSM did not handle any aspect of the emergency reclamation requests in Kentucky, these have all be managed by the KYDAML.

Beginning March 8, 2011, KYDAML began processing high priority AML reclamation projects under KY's non-emergency AML plan. To facilitate a prompt turn around, KYDAML requested that OSM expedite the ATPs for these projects. OSM has accommodated these requests as much as possible. During this EY, Kentucky has responded to over 530 AML complaints from Kentucky citizens that resulted in expedited ATPs for sixteen high priority AML reclamation projects.

To better serve the needs of these high priority projects, KYDAML has created an office devoted to high priority projects in Hazard, Kentucky. The location much better suited for response to citizens and gives the office a centralized location for handling these demanding projects.



Ronald Hall High Priority project located in Pike County, KY. A landslide threatened citizens at the occupied home with slide material within 2 feet of home. Photo during and after State abatement activity.

OSM continues to work with Kentucky to assume an AML emergency reclamation program as part of its approved AML plan.

C. Acid Mine Drainage Set Aside

AMD funds are authorized by SMCRA to address the costs associated with accomplishing AMD remediation of AML eligible problems, such as program administration, planning, design, construction, and construction monitoring. This program area has had a short history in Kentucky, as the first AMD project was announced in April 2008. This EY, KYDNR completed 7 projects in EY 2012. These AMD projects are: 1) Graham Post Office (Muhlenberg Co.), 2) Charlie Bentley Small Purchase, 3) Bunt Sisk Hills U Repair (Hopkins Co.), 4) East Bernstadt Small Purchase (Laurel Co.), 5) Harper Drainage AMD Small Purchase (Muhlenberg Co.), 6) Big Branch-Viper AMD (Perry Co.), and 7) Steve Young Drainage AMD Small Purchase (Davies). At the end of EY 2012, these seven AMD projects totaled \$772,063.55 in expenditures. This brings the total AML grant deposits in the KYDNR AMD fund account to \$12,670,934.55.



Big Branch - Viper Acid Mine Drainage Abatement project in Perry County

One of these projects was the Big Branch - Viper Acid Mine Drainage Abatement project in Perry County. The project began in 2009 and was completed in October of 2011 at a cost of \$588,815.91. The goal was to address acid mine drainage that contained high levels of acidity and other contaminants. The photo to the left shows the site before treatment. Even the box culvert shows signs of degradation from exposure to the acid water. At the time the photo was taken, the pH at the site ranged between 3.9 – 4.2 standard units. The water quality data in 2011 show significant improvement with pH levels at 7.4.

D. AML Enhancement Rule

The AML Enhancement Rule (ER) guidelines were published in the Federal Register on February 12, 1999. The rule addresses projects that involve incidental coal removal of some sort, requiring a determination under the provision of CFR 707 and 874.16.

In the past, KYDNR requested and was authorized to proceed on twenty-one ER projects. In most cases, for an ER project to be considered completed by KYDNR, all refuse removal and initial reclamation by the contractor, and the State funded portion of the government financed project, must have been completed. This government funded portion generally involves the tree planting and monitoring for a year. In EY 2012, KYDAML had completed no ER projects. This is due to lack of trees from the nursery as a result of damage from a tornado. KYDAML is prepared to move forward with completing several projects in the upcoming EY after recently getting the nursery issue resolved.

During the EY, KYDNR requested and was authorized to proceed with four new ER projects: 1) Straight Fork Refuse (Pike County), 2) Pine Creek Refuse (Letcher County), 3) Hardburly Refuse Fill 1 (Perry County), and 4) Mud Creek Refuse (Floyd County). These projects are estimated to save the AML Fund approximately \$325,450.

These projects are all located in Eastern Kentucky and generally involve the removal of coal refuse from abandoned refuse piles (averaging 44.4 acres) using loaders and coal trucks. The refuse will be hauled on private or public roads to nearby permanent program permitted coal facilities for processing and waste disposal of the non-marketable portion. Generally, no processing of the refuse is performed on the AML project sites. However, some mechanical separation is allowed on a case-by-case basis. All of the projects require the contractor to reclaim the areas to a pre-mining configuration, establish a growth medium on the surface, and establish a general vegetative cover. KYDNR will then plant trees on the sites using AML funds usually within the following two years when tree seedling survival conditions are optimum.

D. AML Water Supply Projects

KYDNR provides AML funds for water supply projects that are administered by local governments, such as city, county, and/or public water commission agencies. The projects provide municipal domestic water supply to areas where private domestic water supplies (dug or drilled wells) have been impacted by AML eligible coal mining operations. Frequently these projects combine other federal, state, and local governmental funds to provide public water to a larger area. The other sources of funds would allow non-AML impacted areas to also receive the public water. AML funds a portion of the cost of these water replacement projects based on the mining impacts found in groundwater quality studies. The funds are most commonly used to install water storage tanks, booster pump stations, and residential water meters and/or extend or enhance existing water trunk lines and water facilities serving AML impacted areas.

Based on information from closed AML grants, KYDNR has expended over \$80 million dollars for waterline improvements and has provided over 12,000 households with potable water supplies in 24 counties in eastern, southern, and western Kentucky. During EY 2012, KYDNR submitted, and OSM authorized, nine new projects, 506,122 linear feet of new water lines that will upgrade and/or extend existing water supply facilities to provide safe domestic water supplies for about 1592 new residential customers at an estimated cost of \$13,085,372.

The projects located in Eastern Kentucky are as follows: 1) Arnolds Fork-Clear Creek Phase III (Knott County), 2) Big Branch Water Supply (Perry County), 3) Mary-Bethany Flat Phase II Water Supply (Wolfe County), 4) South Perry Phase III Water Supply (Perry County), 5) City of Jackson-Hwy 476 Water Supply (Breathitt County), 6) Deane Area Water Supply (Letcher County), 7) Deane Area Phase I Water Supply (Letcher County), 8) Pine Creek, Cram Creek, Pert Creek WSP (Letcher County), and the 9) Copeland/Duck Hollow and River Caney WSP (Breathitt County).

During waterline installation, it is sometimes necessary for KYDAML to cross under water bodies (such as streams, rivers, and lakes), railroads, and major highways. Traditionally, this involved “sinking” a pipe across a lake or open cutting a creek and encasement in concrete of waterlines. The waterline would still be exposed to impacts from the currents and materials carried by the water body. Crossing railroads and highways could involve significant traffic holdups, affect existing facilities, and sometimes require extensive negotiation with the railroad or highway departments. KYDAML, in an effort to protect and preserve the environment, is currently allowing waterline construction companies to directionally drill beneath lakes, rivers, stream channels, railroad tracks, or any other structures that could possibly be damaged due to the construction efforts.

Ongoing projects at the end of the EY were: 1) Trace Fork – Spicy Ridge project (Martin County); 2) KY HWY 476 project (Breathitt County); 3) South Perry Phase III project (Perry County); 4) Mary-Bethany Phase II project (Wolfe County); 5) Duck Hollow/Copeland and River Caney project (Breathitt County); 6) Clear Creek Phase III & Arnolds Fork (Knott County); and 7) Deane Phase I project (Letcher County).

Kentucky Highway 582 Phase I (located in Knott County) is a large project that KYDAML began constructing in EY 2012. This project has a MOA that allowed for \$3,000,000 for the completion of this project. To date only \$137,000 has been expended to pay for the design work on this project. This project will install over 150,000 linear feet of water lines and provide potable water for over 490 residents in the area. This project is currently in the final stages of design work and should be active soon.

During the EY 2012, KYDAML had 8 water supply projects under various phases of construction, which include some of the newly authorized projects. One project $\frac{3}{4}$ The Clear Creek Phase II and Dry Creek Water Supply Project $\frac{3}{4}$ was completed in this evaluation year.

E. Enhancement and Performance Review Results

LFO conducted 229 enhancement and performance review inspections on State AMLR projects in accordance with the EY 2012 Performance Agreement. The breakdown in the inspection types are as follows:

- 11 pre-authorization inspections
- 44 pre-construction inspections
- 91 active construction inspections
- 57 final construction inspections
- 20 post-construction inspections
- 6 citizen complaint inspection concerning a State AML project

LFO identified 18 concerns during inspections of 15 AMLR projects during the EY. The increase in inspections conducted and concerns identified compared to data from previous years is the result of LFO staff having more time to conduct oversight inspections, rather than any change in the performance of the AML program. Two years ago, a significant amount of LFO staff resources were committed to conducting preliminary investigations of AML emergency complaints in support of OSM's AML emergency reclamation program. Last year, there were new personnel added to LFO's team responsible for AML oversight and as a result of the learning curve evaluated fewer projects. OSM ended the Federal AML emergency reclamation program on September 30, 2010, after which LFO conducted no more preliminary investigations for AML emergency complaints. The State investigated alleged AML emergency complaints along with the non-emergency complaints received in Kentucky from that date on.

Fourteen of the 18 concerns were minor in nature with the following distribution: nine were identified during active construction oversight inspections; six were during final construction inspections and three during randomly selected post construction inspections. Five were considered major in nature with all being identified during the active construction inspections.

All of the concerns have been satisfactorily resolved with the State. These concerns were site-specific in nature, with only comments or questions to be considered in discussion with KYDAML about programmatic concerns. During the EY, KYDAML performed all construction monitoring in-house with State personnel, except for water supply projects where daily construction monitors are contracted and KYDAML conducts periodic, monthly, and final construction inspections. Three of the minor concerns involved stability issues on slopes and other areas where KYDAML construction activity had occurred. Three other minor concerns involved with the questions on whether the design of the project would meet the goals to be achieved.

The major concerns were all identified during active inspections. In all cases of minor or major concerns, KYDNR took swift, decisive action to notify the contractors of their obligations under their Reclamation Agreements and effect compliance with the authorized project conditions and specifications. One of the major site-specific concerns addressed a

sedimentation issue from the haul road and main drainage features of one of the projects. The project was revised to adequately address the situation, as KYDAML was aware of the concern OSM identified.

Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying by contacting Joseph L. Blackburn, Field Office Director at the OSM Lexington Field Office, 2675 Regency Road, Lexington, Kentucky 40503 or by emailing jblackburn@osmre.gov. Topic specific reports are available at <http://www.arcc.osmre.gov/FOs/LFO/KY/kyoversight.shtm> on the OSM website. Requests for paper or electronic copies can also be requested by writing to:

Joseph L. Blackburn, Field Office Director
Office of Surface Mining
2675 Regency Road
Lexington, Kentucky 40503

APPENDIX A

Acronyms Used in this Report

Acronyms Used In the Report

The following acronyms are used in this report:

A&E	Administration and Enforcement
ACSI	Appalachian Clean Streams Initiative
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
AOC	Approximate Original Contour
ARC	Appalachian Regional Commission
ARRI	Appalachian Regional Reforestation Initiative
BG	Backfilling and Grading
BLM	Bureau of Land Management
BO	Biological Opinion
CHIA	Cumulative Hydrologic Impact Assessment
CIA	Cumulative Impact Area
CO	Cessation Order
COE	U.S. Army Corps of Engineers
CR	Contemporaneous Reclamation Performance Standard
CRI	Citizens' Request for Inspection
CWA	Clean Water Act
CY	Calendar Year
DBNF	Daniel Boone National Forest
DEP	Department of Environmental Protection
DMP	Division of Mine Permits
DMR	Discharge Monitoring Reports
DMRE	Division of Mine Reclamation and Enforcement
DOI	Department of Interior
DOW	Division of Water
ECP	Enhanced Coordination Procedures
EEC	Environment and Energy Cabinet
EQC	Environmental Quality Commission
EPPC	Environmental and Public Protection Cabinet
ER	Enhancement Rule
ESA	Endangered Species Act
EY	Evaluation Year
FOD	Field Office Director
FPOP	Fill Placement Optimization Process
FRA	Forestry Reclamation Approach
FY	Fiscal Year
GFW	Green Forest Works
GIS	Geographic Information System

HUC	Hydrologic Unit Code
I&E	Inspection and Enforcement
IP	Individual Permit
KDF	Kentucky Division of Forestry
KDFWR	Kentucky Department of Fish and Wildlife Resources
KPDES	Kentucky Pollutant Discharge Elimination System
KY	Kentucky
KYDAML	Division of Abandoned Mine Lands
KYDNR	Kentucky Department for Natural Resources
LCC	Lexington Coal Company
LFO	Lexington Field Office
LTT	Long-Term Treatment
MRP	Mining Reclamation Plan
MSHA	Mine Safety and Health Administration
MTM	Mountain Top Mining
NC	Notice of Non-Compliance
NELAC	National Environmental Laboratory Accreditation Conference
NEPA	National Environmental Protection Act
NOI	Notice of Intent to Sue
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
OIG	Office of Inspector General within Department of Interior
OMSL	Office of Mine Safety and Licensing
OSM	Office of Surface Mining Reclamation and Enforcement
OSRW	Outstanding State Resource Water
PEP	Protection and Enhancement Plan
PMLU	Post-Mining Land Use
PU	Project Unit
QA/QC	Quality Assurance/Quality Control
RA	Regulatory Authority
RAM	Reclamation Advisory Memorandum
RD	Regional Director
SCP	Subsidence Control Plans
SHPO	State Historic Preservation Officer
SMCRA	Surface Mining Control and Reclamation Act of 1977
SMIS	Surface Mining Information System
T&E	Threatened and Endangered
TDN	Ten-Day Notice
TIPS	Technical Innovation and Professional Services
TVA	Tennessee Valley Authority
UK	University of Kentucky
USFWS	U.S. Fish and Wildlife Service
VER	Valid Existing Rights

APPENDIX B

Tabular Summary of Core Data

To Characterize the Program

TABLE 1

COAL PRODUCED FOR SALE , TRANSFER, OR USE¹ (Millions of short tons)			
Calendar Year	Surface Mines	Underground Mines	Total
2011	44.502	66.344	110.846

¹Coal production is the gross tonnage (short tons) and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported by each mining company to OSM during the following quarter on line 8(a) of form OSM-1, "Coal Reclamation Fee Report." Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by other sources due to varying methods of determining and reporting coal production.

TABLE 1
COAL PRODUCED FOR SALE, TRANSFER, OR USE
DURING THE CALENDAR YEAR
(Millions of short tons)

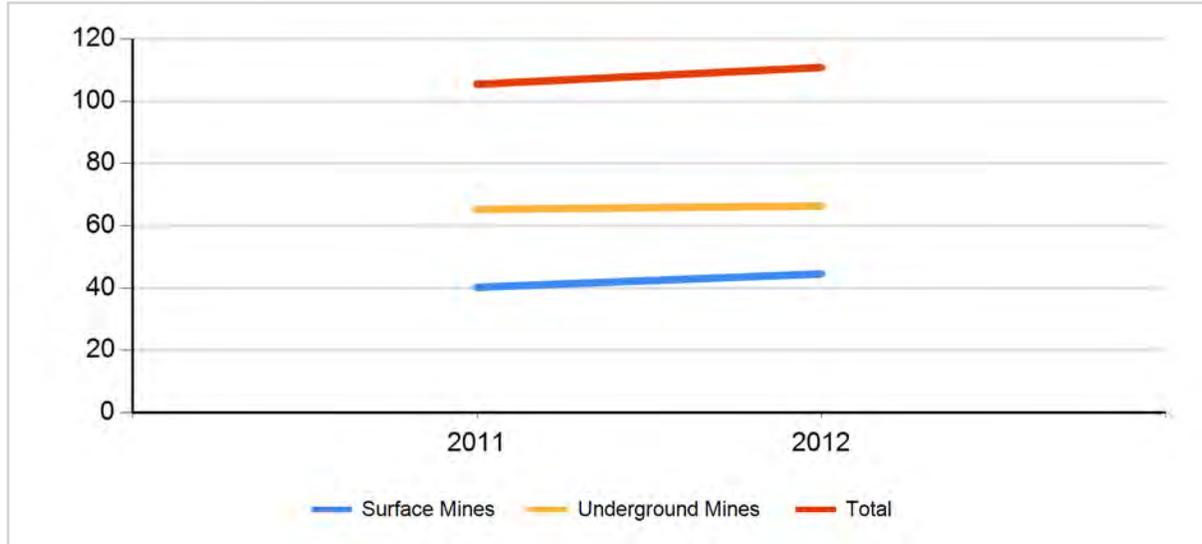


TABLE 1

COAL PRODUCED FOR SALE , TRANSFER, OR USE ^A
(Millions of short tons)

Calendar Year	Surface Mines	Underground Mines	Total
2010	40.2	65.2	105.4
2011	44.5	66.3	110.8

^A Coal production is the gross tonnage (short tons) and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported by each mining company to OSM during the following quarter on line 8(a) of form OSM-1, "Coal Reclamation Fee Report." Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by other sources due to varying methods of determining and reporting coal production.

TABLE 2

PERMANENT PROGRAM PERMITS, INITIAL PROGRAM SITES, INSPECTABLE UNITS, AND EXPLORATION														
Mines and Other Facilities	Numbers of Permanent Program Permits and Initial Program Sites								Insp. Units^{1 2}	Area in Acres³				Total Area
	Permanent Program Permits				Initial Program Sites					Permanent Program Permits (Permit Area)		Initial Program Sites		
	Active	Inactive	Aban-doned	Total	Active	Inactive	Aban-doned	Total		Federal Lands	State/Tribal and Private Lands	Federal Lands	State/Tribal and Private Lands	
Surface Mines	829	49	42	920	0	0	0	0	920	6,471	507,965	0	0	514,436
Underground Mines	613	12	35	660	0	0	2	2	662	118,818	1,304,373	0	10	1,423,201
Other Facilities	338	2	6	346	0	0	0	0	346	475	56,961	0	0	57,436
Total	1,780	63	83	1,926	0	0	2	2	2,356	125,764	1,869,299	0	10	1,995,073
Permanent Program Permits and Initial Program Sites (Number on Federal Lands: 40)				Total Number:	1,928				Average Acres per Site:				1,034.79	
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):				Total Number:	1.00				Average Acres per IU:				1,034.79	
Permanent Program Permits in Temporary Cessation:				Total Number:	120				Number More than 3 Years:				29	
EXPLORATION SITES				Total Number of Sites				Sites on Federal Lands⁴				Exploration Inspectable Units		
Exploration Sites with Permits:				1				0				1		
Exploration Sites with Notices:				427				0				427		
¹ An Inspectable Unit may include multiple small and neighboring Permanent Program Permits or Initial Program Sites that have been grouped together as one Inspectable Unit, or conversely, an Inspectable Unit may be one of multiple Inspectable Units within a Permanent Program Permit.														
² Total Inspectable Units calculation includes Exploration Sites Inspectable Units														
³ When a Permanent Program Permit or Initial Program Site contains both Federal and State and Private lands, the acreage for each type of land is in the applicable column.														
⁴ The number of Exploration Sites on Federal lands includes sites with exploration permits or notices any part of which is regulated by the state under a cooperative agreement or by OSM pursuant to the Federal Lands Program, but excludes exploration sites that are regulated by the Bureau of Land Management														

**CHART 2A HISTORICAL TRENDS
NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS**

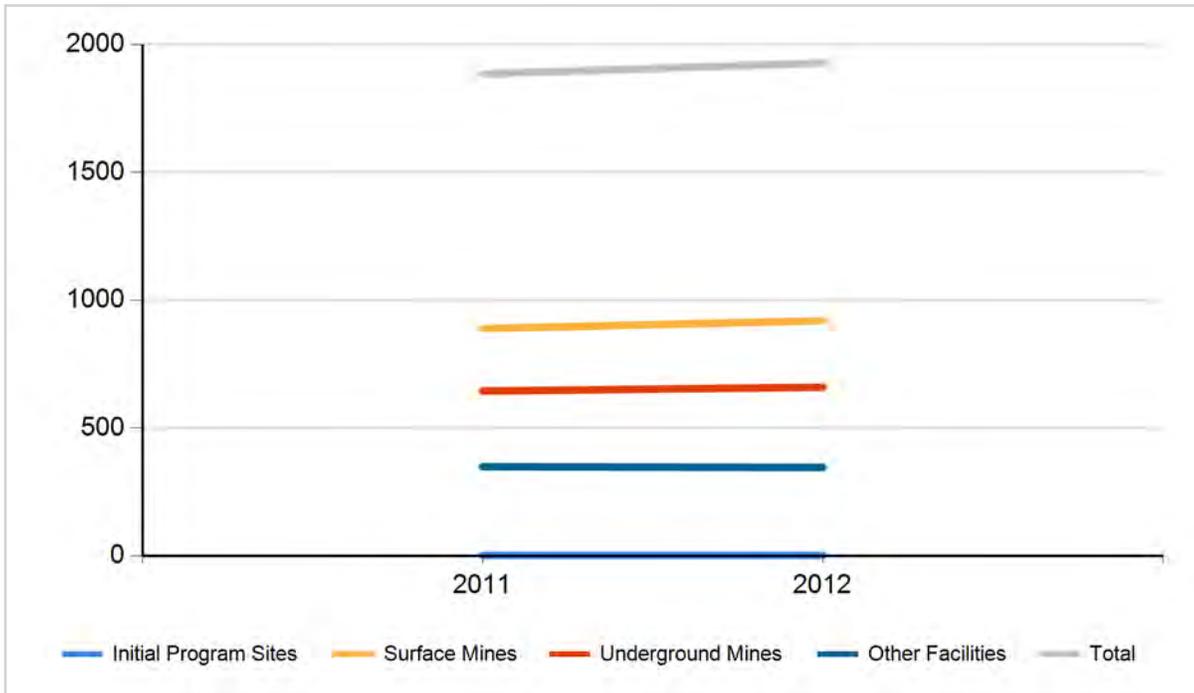


TABLE 2A

NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2011	2	889	645	349	1885
2012	2	920	660	346	1928

**CHART 2B HISTORICAL TRENDS
AREA OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS**

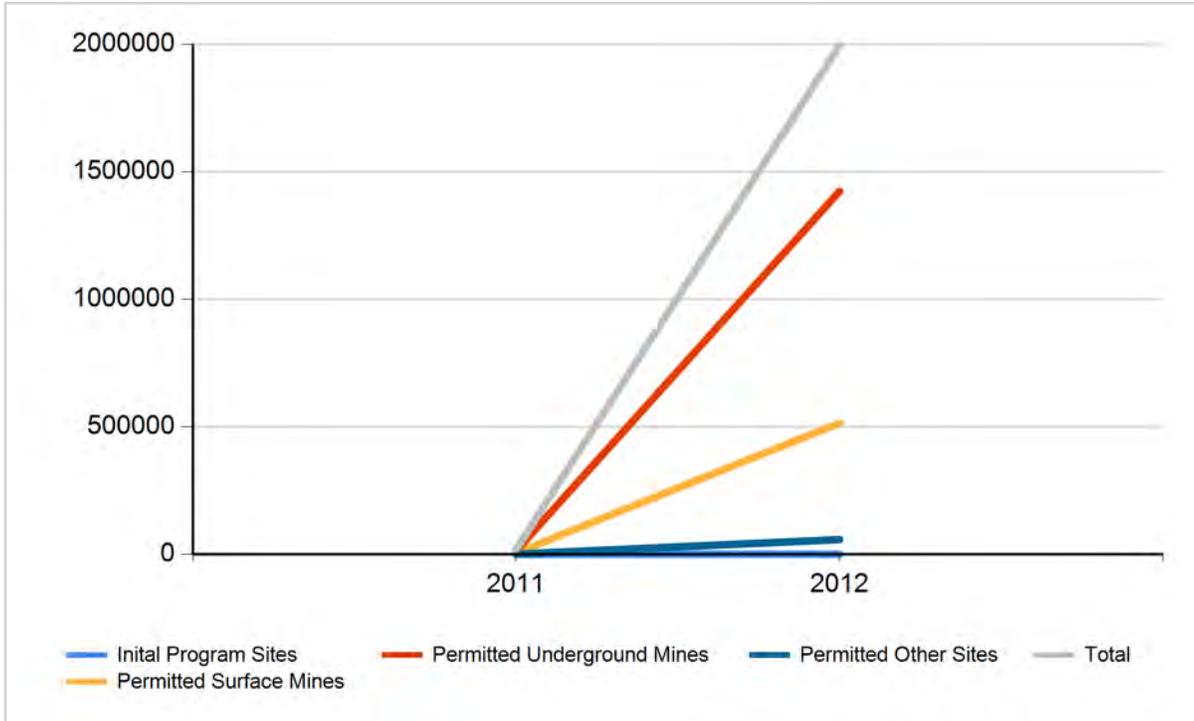


TABLE 2B

AREA OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2011	0.1	5054.5	14200.1	575.4	19830.1
2012	10.0	514436.0	1423191.0	57436.0	1995073.0

TABLE 3

PERMITS ALLOWING SPECIAL CATEGORIES OF MINING			
Special Category of Mining	30 CFR Citation Defining Permits Allowing Special Mining Practices	Numbers of Permits	
		Issued During EY	Total Active and Inactive Permits
Experimental Practice	785.13(d)	0	10
Mountaintop Removal Mining	785.14(c)(5)	0	14
Steep Slope Mining	785.15(c)	0	139
AOC Variances for Steep Slope Mining	785.16(b)(2)	0	97
Prime Farmlands Historically Used for Cropland	785.17(e)	1	97
Contemporaneous Reclamation Variances	785.18(c)(9)	7	210
Mining on or Adjacent to Alluvial Valley Floors	785.19(e)(2)	0	0
Auger Mining	785.20(c)	33	708
Coal Preparation Plants Not Located at a Mine Site	785.21(c)	0	164
In-Situ Processing	785.22(c)	0	1
Remining	773.15(m) and 785.25	18	368
Activities in or Within 100 Feet of a Perennial or Intermittent Stream	780.28(d) and/or (e) 784.28(d) and/or (e)	0	0

**CHART 3A HISTORICAL TRENDS
PERMITS ALLOWING SPECIAL CATEGORIES OF MINING**

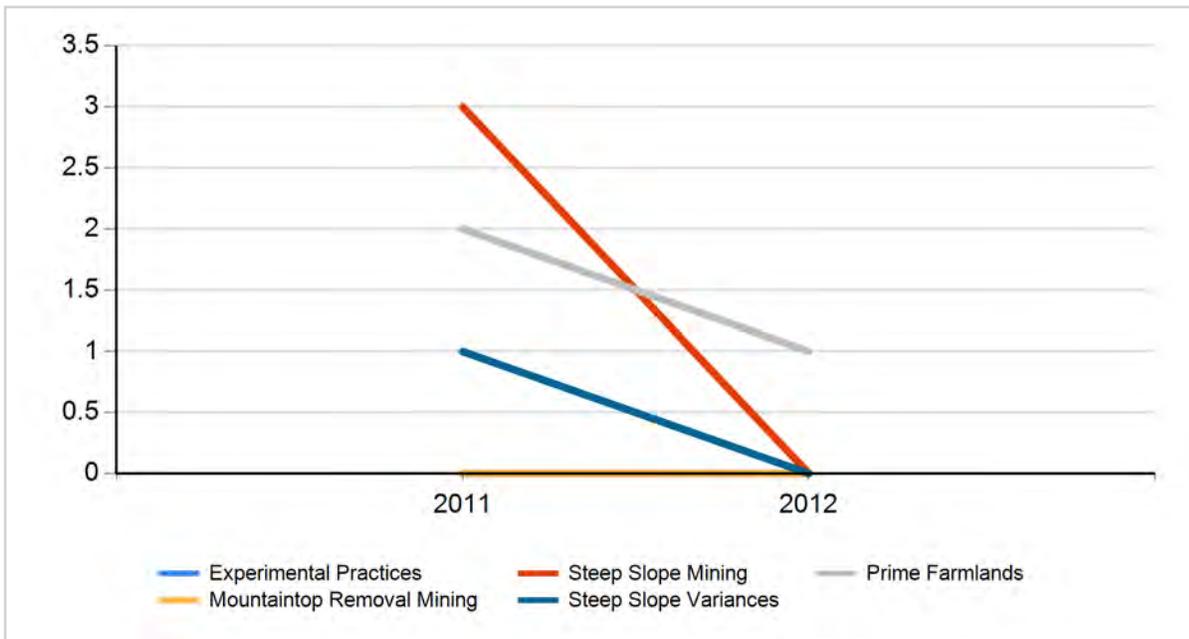


TABLE 3A

NUMBER OF PERMITS ISSUED AND REVISIONS APPROVED					
Year	Experimental Practices	Mountaintop Removal Mining	Steep Slope Mining	Steep Slope Variances	Prime Farmlands
2011	0	0	3	1	2
2012	0	0	0	0	1

**CHART 3B HISTORICAL TRENDS
PERMITS ALLOWING SPECIAL CATEGORIES OF MINING**

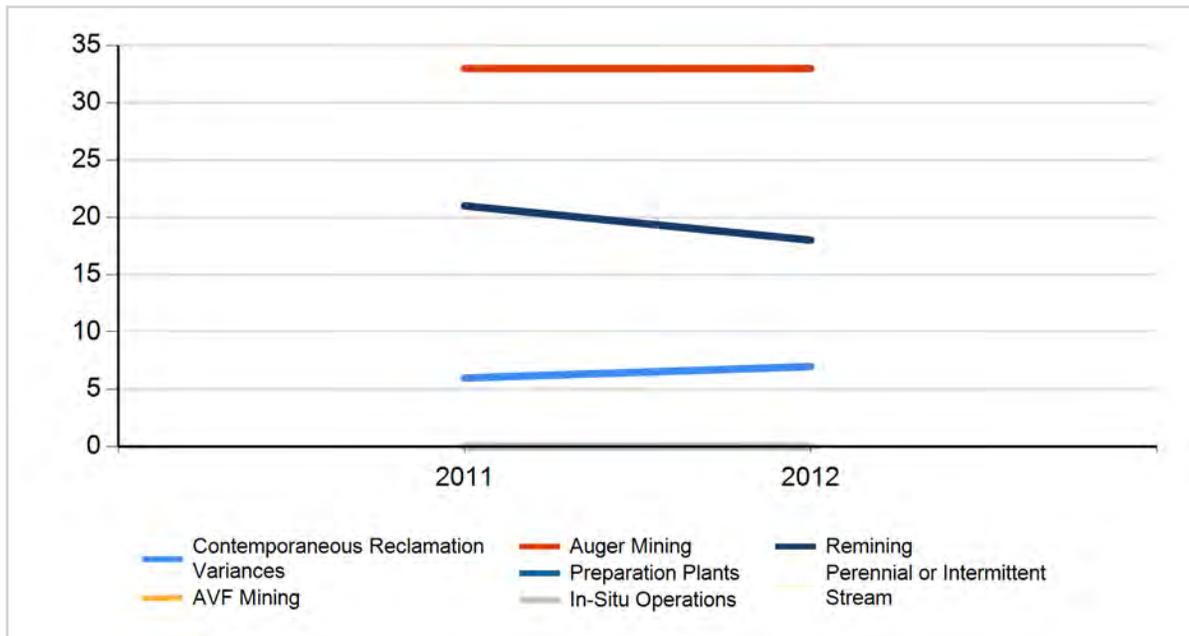


TABLE 3B

NUMBER OF PERMITS ISSUED AND REVISIONS APPROVED							
Year	Contemporaneous Reclamation Variances	AVF Mining	Auger Mining	Preparation Plants Not at Mine Site	In-Situ Operations	Remining	Perennial/ Intermittent Streams
2011	6	0	33	0	0	21	0
2012	7	0	33	0	0	18	0

TABLE 4

PERMITTING ACTIVITY												
Type of Application	Surface Mines			Underground Mines			Other Facilities			Totals		
	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres ¹	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres
New Permits	52	50	13,136	33	18	23,697	8	9	782	93	77	37,615
Renewals	80	72		81	95		62	66		223	233	
Transfers, sales, and assignments of permit rights	62	94		69	63		25	24		156	181	
Small operator assistance	5	5		0	0		0	0		5	5	
Exploration permits										0	0	
Exploration notices ²											0	
Revisions that do not add acreage to the permit area		29			7			4			40	
Revisions that add acreage to the permit area but are not incidental boundary revisions	82	89	8,419	42	55	27,867	15	16	317	139	160	36,603
Incidental boundary revisions	308	285	569	134	91	133	71	57	34	513	433	736
Totals	589	624	22,124	359	329	51,697	181	176	1,133	1,129	1,129	74,954
Permits terminated for failure to initiate operations:							Number:	0	Acres:		0.0	
Acres of Phase III bond releases (Areas no longer considered to be disturbed):									Acres:		12,648.0	
Permits in temporary cessation							Notices received:	141	Terminations:		19	
Midterm permit reviews completed that are not reported as revisions							Number:	372				
¹ Includes only the number of acres of proposed surface disturbance												
² State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.												

TABLE 5

**OFF-SITE IMPACTS
EXCLUDING BOND FORFEITURE SITES**

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	14	0	0	3	0	0	3	0	0	0	1	0	7
Land Stability	214	0	9	2	154	40	2	1	0	0	0	5	1
Hydrology	117	0	6	0	0	2	0	103	5	1	0	0	0
Encroachment	144	0	0	0	104	32	5	0	0	0	3	0	0
Other	60	1	3	0	14	12	1	0	0	0	3	6	0
Total	549	1	18	5	272	86	11	104	5	1	7	11	8

Total Number of Inspectable Units²: 2362

Inspectable Units with one or more off-site impacts: 332

Inspectable Units free of off-site impacts: 2030

% of Inspectable Units free of off-site impacts¹: 83

OFF-SITE IMPACTS AT BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	78	0	0	0	7	26	45	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	78	0	0	0	7	26	45	0	0	0	0	0	0

Total Number of Inspectable Units²: 93

Inspectable Units with one or more off-site impacts: 93

Inspectable Units free of off-site impacts: 0

% of Inspectable Units free of off-site impacts¹: 0

TABLE 5
(Continued)

TOTAL OFF-SITE IMPACTS INCLUDING BOND FORFEITURE SITES													
RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	14	0	0	3	0	0	3	0	0	0	1	0	7
Land Stability	292	0	9	2	161	66	47	1	0	0	0	5	1
Hydrology	117	0	6	0	0	2	0	103	5	1	0	0	0
Encroachment	144	0	0	0	104	32	5	0	0	0	3	0	0
Other	60	1	3	0	14	12	1	0	0	0	3	6	0
Total	627	1	18	5	279	112	56	104	5	1	7	11	8
Total Number of Inspectable Units ² :				2455									
Inspectable Units with one or more off-site impacts:				425									
Inspectable Units free of off-site impacts:				2030					% of Inspectable Units free of off-site impacts ¹ :			83	
¹ % of Inspectable Units free of off-site impacts is based on the number of Inspectable Units at the end of the Evaluation Year. The number of Inspectable Units may vary during the Evaluation Year.													
² Total number of Inspectable Units is (1) the number of Inspectable Units at the end of the Evaluation Year and (2) the number of Inspectable Units removed during the Evaluation Year and (3) the number bond forfeiture sites that were reclaimed during the Evaluation Year and (4) the number of bond forfeiture sites that were unreclaimed during the Evaluation Year.													

**CHART 5A HISTORICAL TRENDS
PERCENT OF INSPECTABLE UNITS FREE OF OFF-SITE
IMPACTS**

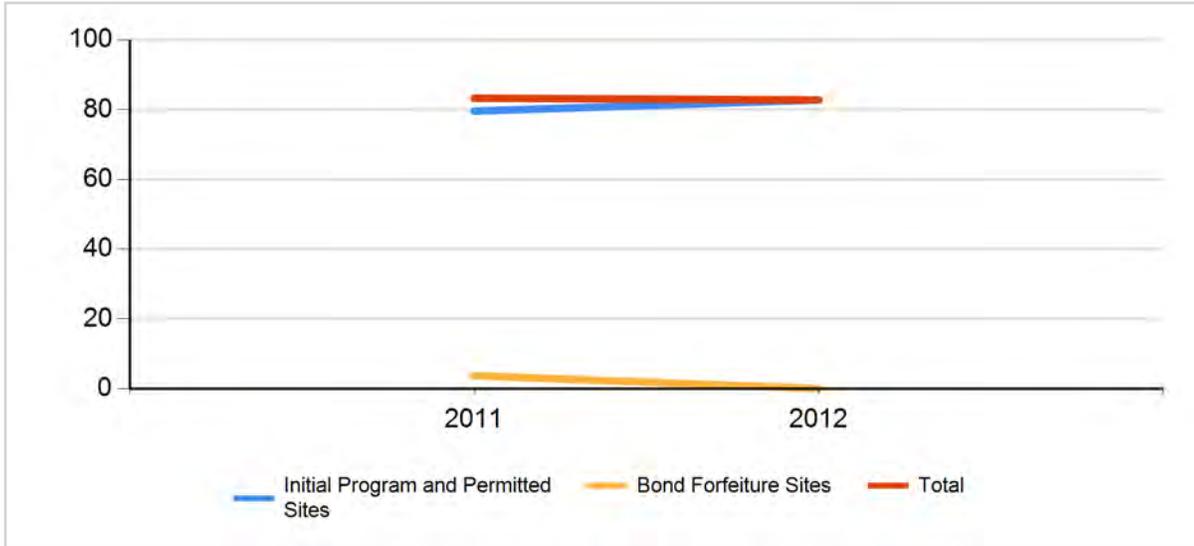


TABLE 5A

PERCENT OF INSPECTABLE UNITS FREE OF OFF-SITE IMPACTS		
Year	Initial Program and Permanent Program Permits	Bond Forfeiture Sites
2011	79.6	3.7
2012	82.8	0.0

TABLE 6

SURFACE COAL MINING AND RECLAMATION ACTIVITY							
Areas of Phase I, II, and III Bond Releases During the Evaluation Year (EY)							
Phase I Releases	Phase II Releases		Phase III Releases			Total Acres Released During the EY	
	Total Acres Released in Approved Phase II Releases	Acres not previously released under Phase I	Total Acres Released in Approved Phase III Releases	Acres not previously released under Phase II	Acres not previously released under Phase I or II		
13,592		0			0	Phase I	13,592
	4,879			0		Phase II	4,879
			12,648			Phase III	12,648
Cumulative Total Acres Released under All Bond Release Phases at the End of the Evaluation Year					62,439	Other Releases - Acres	
Number of Permanent Program Permits with Jurisdiction Terminated Under Phase III Bond Release During the Evaluation Year					84		
Initial Program Sites with Jurisdiction Terminated During the Evaluation Year					0	Administrative Adjustments	5662
Number of Inspectable Units Removed					84	Bond Forfeiture	1087
Areas of Permits Bonded for Disturbance by Surface Coal Mining and Reclamation Operations							
					Total Acres at Start of EY	Total Acres at End of EY	Change in Acres During EY
New Area Bonded for Disturbance							18,024
Total Area Bonded for Disturbance					331,292	330,625	(667)
Area Bonded for Disturbance without Phase I Bond Release					285,347	288,884	3,537
Area Bonded for Disturbance for which Phase I Bond Release Has Been Approved					36,964	32,629	(4,335)
Area Bonded for Disturbance for which Phase II Bond Release Has Been Approved					8,822	12,007	3,185
Area Bonded for Disturbance with Bonds Forfeited During Evaluation Year							381
Area Bonded for Remining					0	0	0
Areas of Permits Disturbed by Surface Coal Mining and Reclamation Operations							
Disturbed Area					245,478	250,877	5,399

**CHART 6A HISTORICAL TRENDS
ACRES OF PHASE I, II, AND III BOND RELEASES**

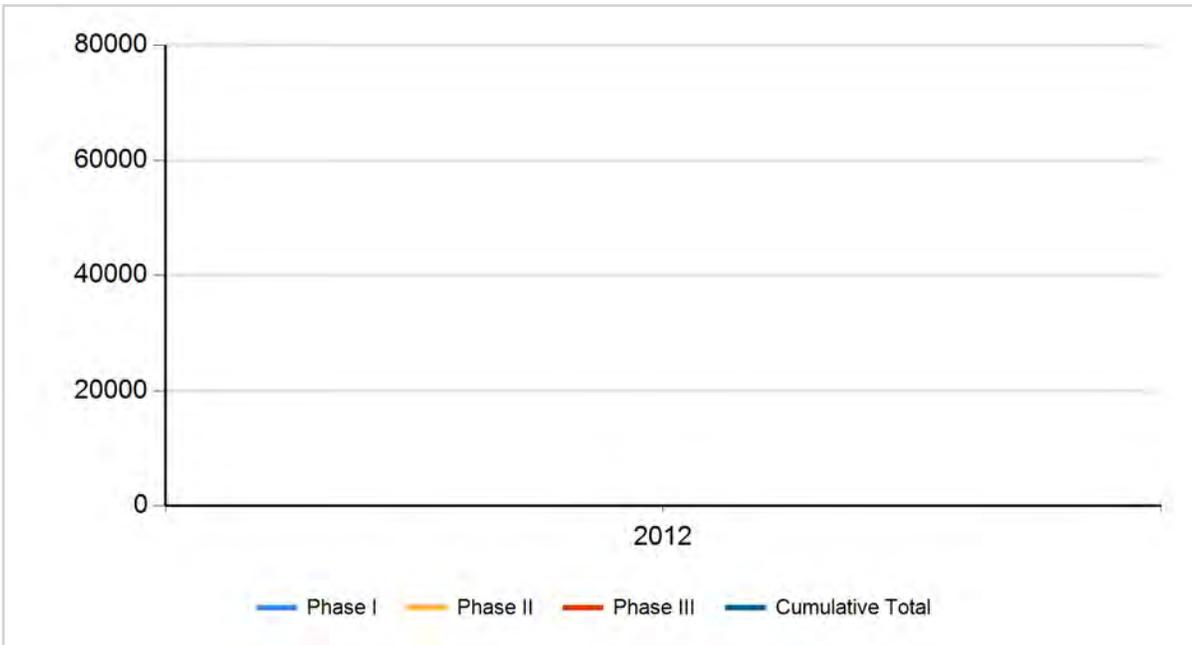


TABLE 6A

ACRES OF PHASE I, II, AND III BOND RELEASES				
Year	Phase III	Phase II	Phase I	Cumulative Total
2012	12648	4879	13592	62439

**CHART 6B HISTORICAL TRENDS
ACRES BONDED FOR DISTURBANCE AND DISTURBED AREA**

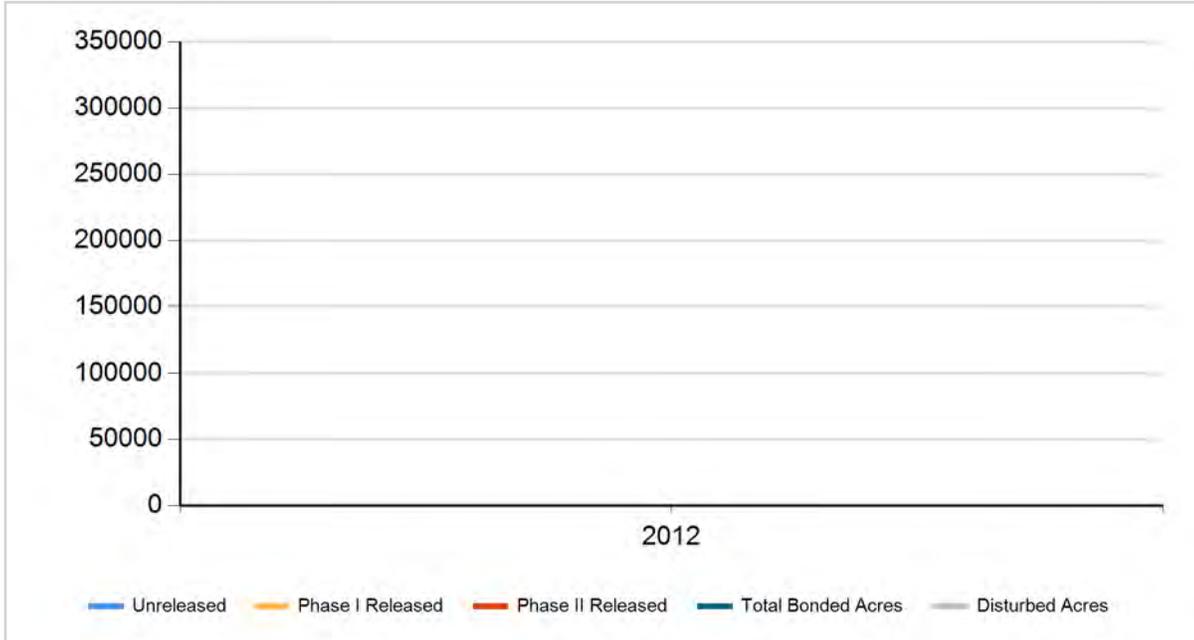


TABLE 6B

AREAS BONDED FOR DISTURBANCE AND DISTURBED AREA					
Year	ACRES BONDED FOR DISTURBANCE				Disturbed Area
	Unreleased	Phase I Released	Phase II Released	Total Bonded Area	
2012	268186.0	32629.0	12007	330625.0	250877.0

TABLE 7

BOND FORFEITURE ACTIVITY (Permanent Program Permits)			
Bond Forfeiture and Reclamation Activity	Number of Sites	Dollars	Acres
Sites with bonds forfeited and collected that were un-reclaimed at the start of the current Evaluation Year (i.e, end of previous Evaluation Year) ¹	78		2,602
Sites with bonds forfeited and collected during the current Evaluation Year	15	1,171,700	381
Sites with bonds forfeited and collected that were re-permitted during the current Evaluation Year	0		0
Sites with bonds forfeited and collected that were reclaimed during the current Evaluation Year	15		1,087
Sites with bonds forfeited and collected that were un-reclaimed at the end of the current Evaluation Year ¹	78		1,896
Sites with bonds forfeited but un-collected at the end of the current Evaluation Year	0		0
Forfeiture Sites with Long-Term Water Pollution			
Bonds forfeited, lands reclaimed, but water pollution is still occurring	0		
Bonds forfeited, lands reclaimed, and water treatment is ongoing	0		
Surety/Other Reclamation Activity In Lieu of Forfeiture			
Sites being reclaimed by surety/other party at the start of the current Evaluation Year (i.e., the end of previous Evaluation Year) ²	1		145
Sites where surety/other party agreed during the current Evaluation Year to do reclamation	4		633
Sites being reclaimed by surety/other party that were re-permitted during the current Evaluation Year	0		0
Sites with reclamation completed by surety/other party during the current Evaluation Year ³	0		0
Sites being reclaimed by surety/other party at the end of the current Evaluation Year ²	5		778
¹ Includes data only for those forfeiture sites not fully reclaimed. ² Includes all sites where surety or other party has agreed to complete reclamation and the site is not fully reclaimed. ³ These sites are also reported in Table 6, Surface Coal Mining and Reclamation Activity, because Phase III bond release would be granted on these sites.			

**CHART 7A HISTORICAL TRENDS
NUMBER OF BOND FORFEITURE SITES**

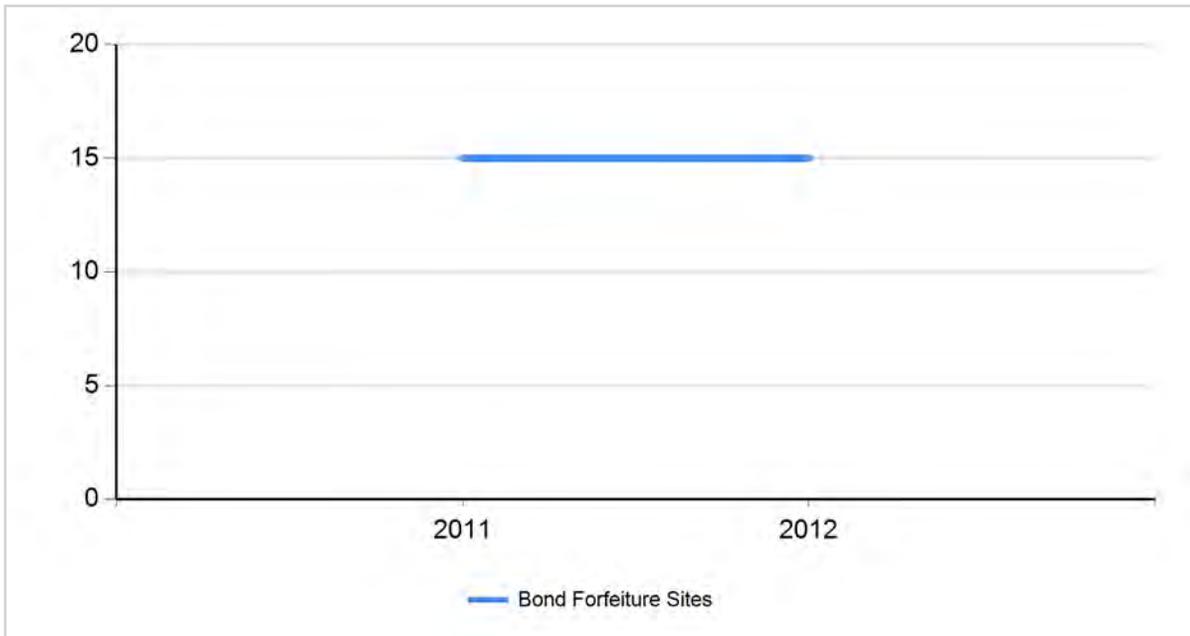


TABLE 7A

NUMBER OF BOND FORFEITURE SITES	
Year	Bond Forfeiture Sites
2011	15
2012	15

**CHART 7B HISTORICAL TRENDS
ACREAGE OF BOND FORFEITURE SITES**

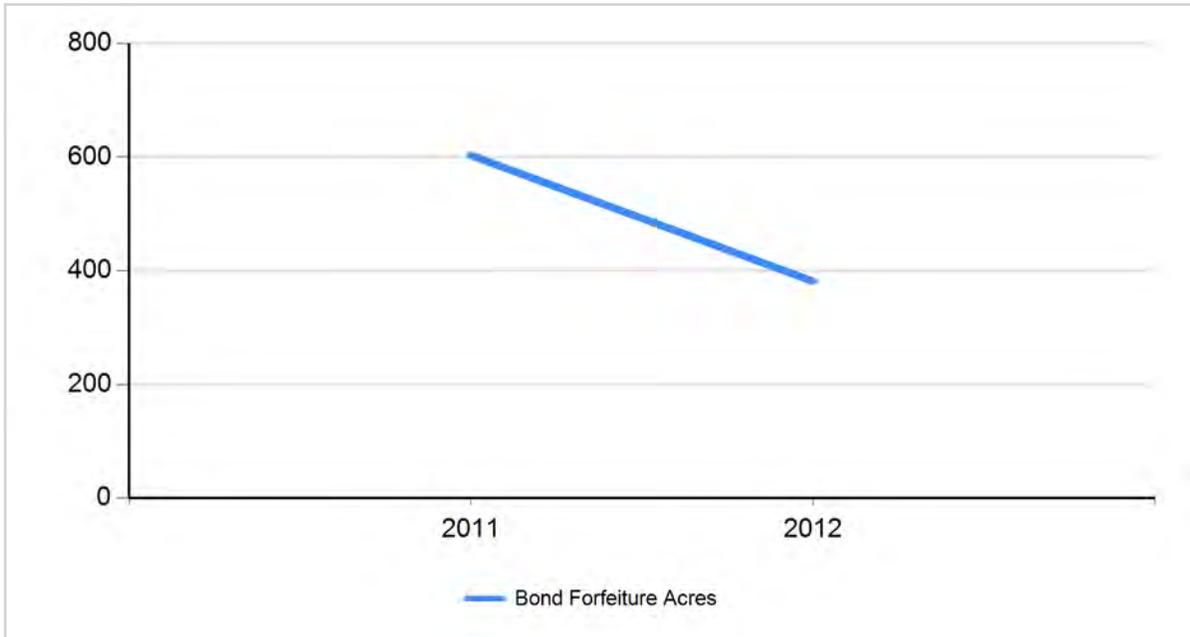


TABLE 7B

ACREAGE OF BOND FORFEITURE SITES	
Year	Acres
2011	603
2012	381

**CHART 7C HISTORICAL TRENDS
NUMBER OF SITES WITH WATER POLLUTION STILL
OCCURRING**

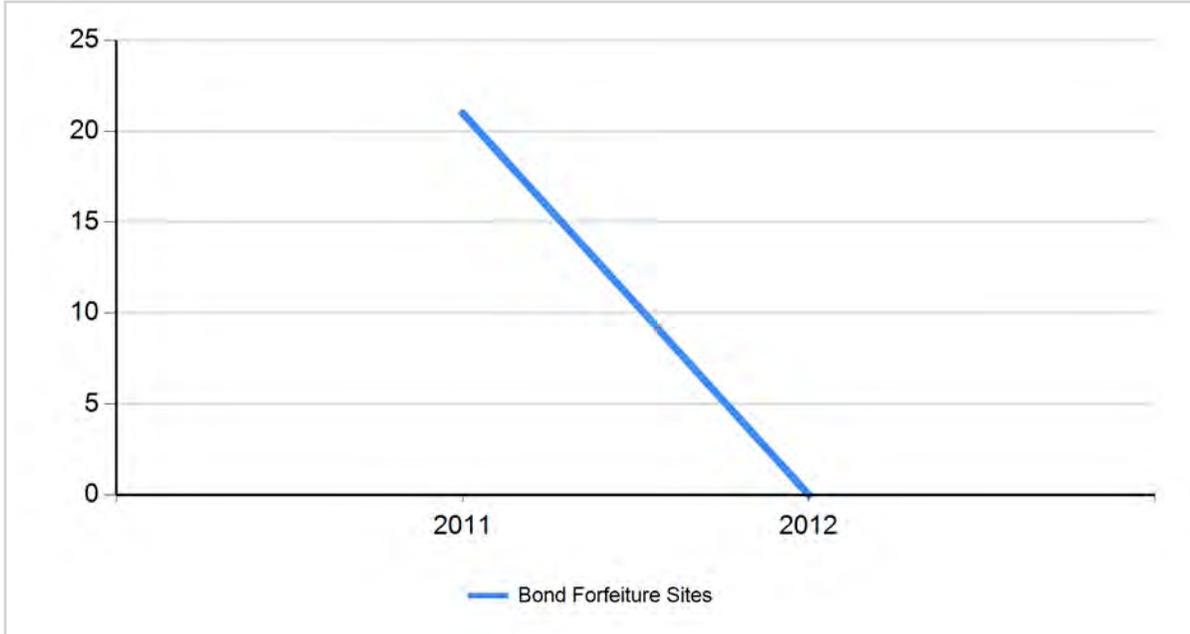


TABLE 7C

NUMBER OF SITES WITH WATER POLLUTION STILL OCCURRING	
Year	Sites
2011	21
2012	0

**CHART 7D HISTORICAL TRENDS
NUMBER OF SITES WITH WATER TREATMENT ONGOING**

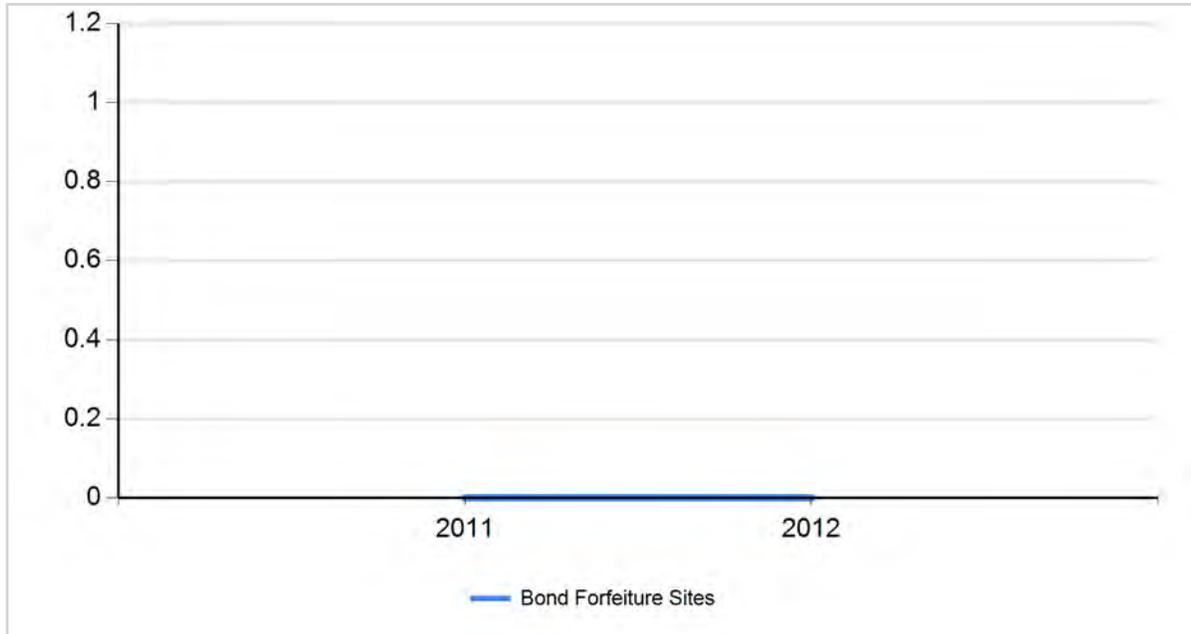


TABLE 7D

NUMBER OF SITES WITH WATER TREATMENT ONGOING	
Year	Sites
2011	0
2012	0

TABLE 8

REGULATORY AND AML PROGRAMS STAFFING	
Function	Number of FTEs
Regulatory Program	
Permit Review and Maintenance	83.00
Inspection	166.00
Other (supervisory, clerical, administrative, fiscal, personnel, etc.)	52.00
Regulatory Program Total	301.00
AML Program Total	98.00
TOTAL	399.00

**CHART 8A HISTORICAL TRENDS
REGULATORY AND AML PROGRAMS STAFFING**

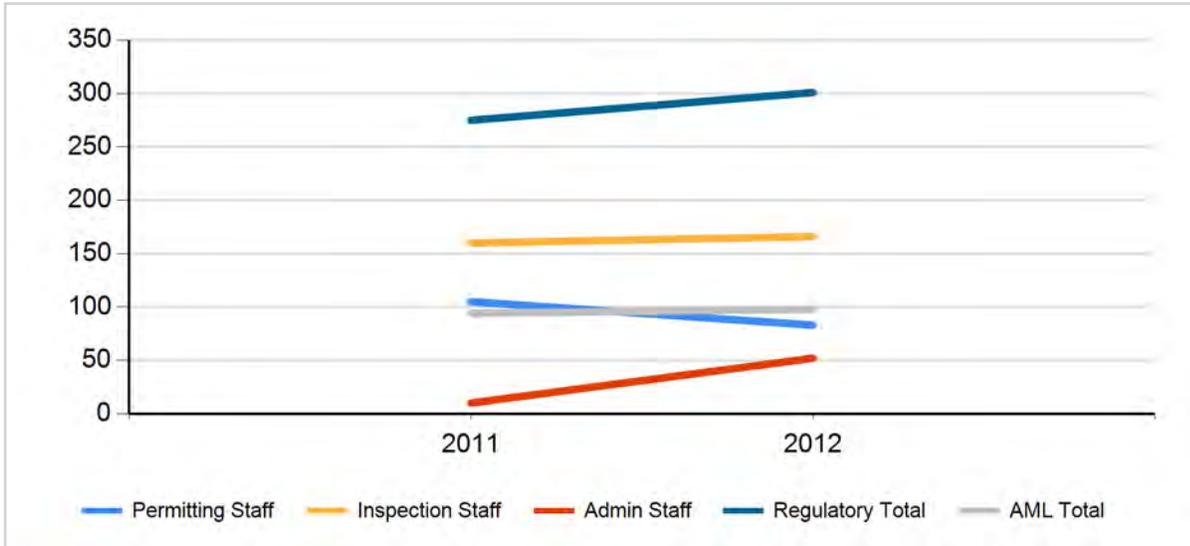


TABLE 8A

REGULATORY AND AML PROGRAMS STAFFING					
	Regulatory Program				
Year	Permitting	Inspection	Admin	Total	AML Program
2011	105	160	10	275	94
2012	83	166	52	301	98

TABLE 9

FUNDS GRANTED TO STATE OR TRIBE BY OSM (Actual Dollars Rounded to the Nearest Dollar)			
Type of Funding	Federal Funds Awarded	Total Program Cost	Federal Funds Awarded as a Percentage of Total Program Costs
Regulatory Funding			
Administration and Enforcement Grant	12,431,861		
Other Regulatory Funding, if applicable	374,209		
Subtotal (Regulatory Funding)	12,806,070	23,863,791	54
Small Operator Assistance Program Grant Funding	0	0	
Abandoned Mine Land Reclamation Funding	44,916,012	44,916,012	100
Watershed Cooperative Agreement Program	0	0	
TOTAL	57,722,082		

**CHART 9A HISTORICAL TRENDS
FUNDS GRANTED TO STATE OR TRIBE BY OSM**

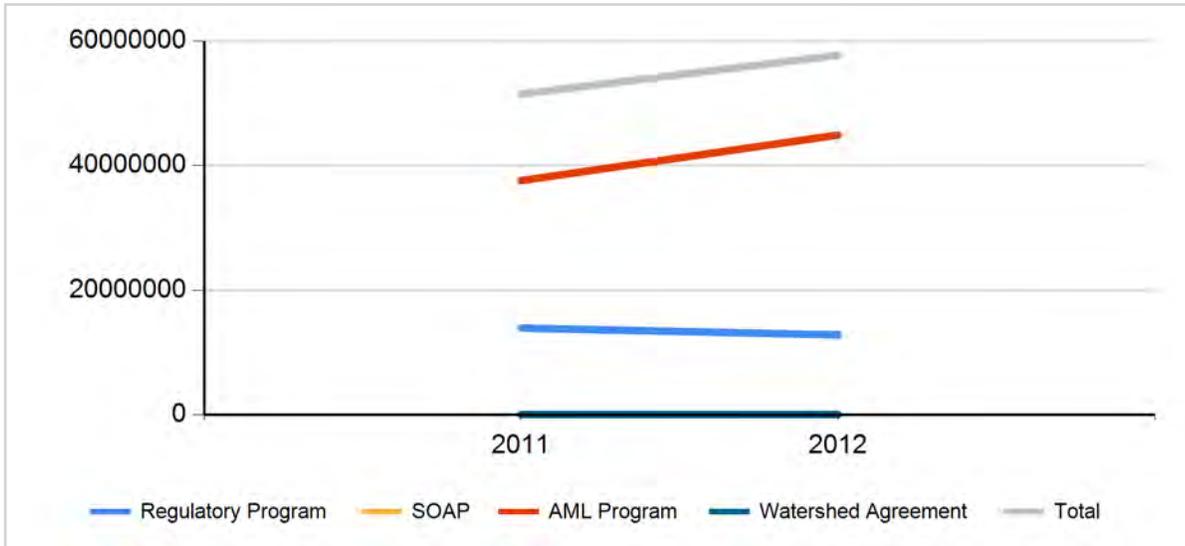


TABLE 9A

FUNDS GRANTED TO STATE OR TRIBE BY OSM				
Year	Regulatory Program	SOAP	AML Program	Total
2011	13,904,250	0	37,591,345	51,495,595
2012	12,806,070	0	44,916,012	57,722,082

TABLE 10

STATE INSPECTION ACTIVITY								
Permits and sites	Number of inspections conducted		Percent of required inspections conducted ¹		Permits and sites for which State met required inspection frequency			
	Complete inspections	Partial inspections	Complete inspections	Partial inspections	Complete inspections		All inspections	
COAL MINES AND FACILITIES					Number	%	Number	%
Active	7,416	14,644	97	99	1,626	91.3	1,569	88.1
Inactive	251	130	92	98	47	74.6	47	74.6
Abandoned	26	21	100	100	85	100.0	85	100.0
TOTALS	7,693	14,795	97	99	1,758	91.2	1,701	88.2
Exploration sites with permits ²	0	0						
Exploration sites with notices ²	1,475	532						

¹ Calculated on a site-specific basis. Excess complete inspections are considered partial inspections. For each site, any inspections in excess of the total number required by the approved program are not included.

² Includes all valid notices and permits. No inspection frequency data are provided since SMCRA does not establish a minimum numerical inspection frequency for coal exploration activities.

**CHART 10A HISTORICAL TRENDS
STATE OR TRIBAL INSPECTION ACTIVITY**

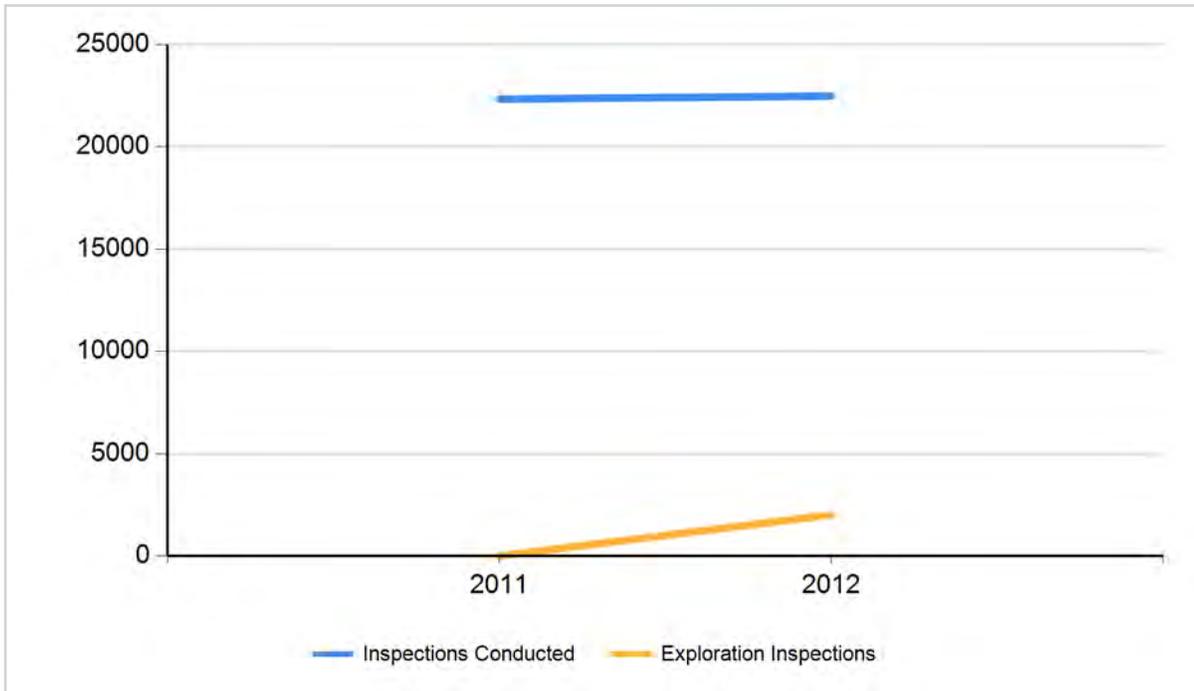


TABLE 10A

STATE OR TRIBAL INSPECTION ACTIVITY		
Year	Inspections Conducted	Exploration Inspections
2011	22333	0
2012	22488	2007

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	Number of Actions ¹	Number of Violations ¹
Notice of Violation	1,331	2,716
Failure-to-Abate Cessation Order	159	371
Imminent Harm Cessation Order	15	21

¹ Does not include actions and violations that were vacated.

**CHART 11A HISTORICAL TRENDS
STATE OR TRIBAL ENFORCEMENT ACTIVITY**

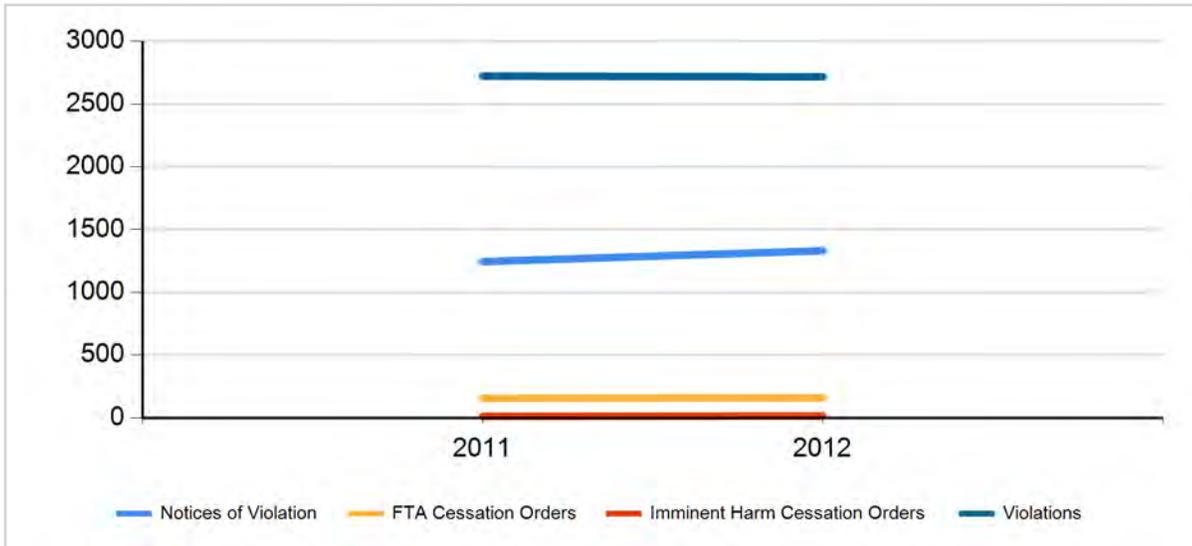


TABLE 11A

STATE OR TRIBAL ENFORCEMENT ACTIVITY				
Year	Notices of Violation	Violations	FTA Cessation Orders	Imminent Harm Cessation Orders
2011	1244	2722	156	12
2012	1331	2716	159	15

TABLE 12

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

**CHART 12A HISTORICAL TRENDS
LANDS UNSUITABLE ACTIVITY**

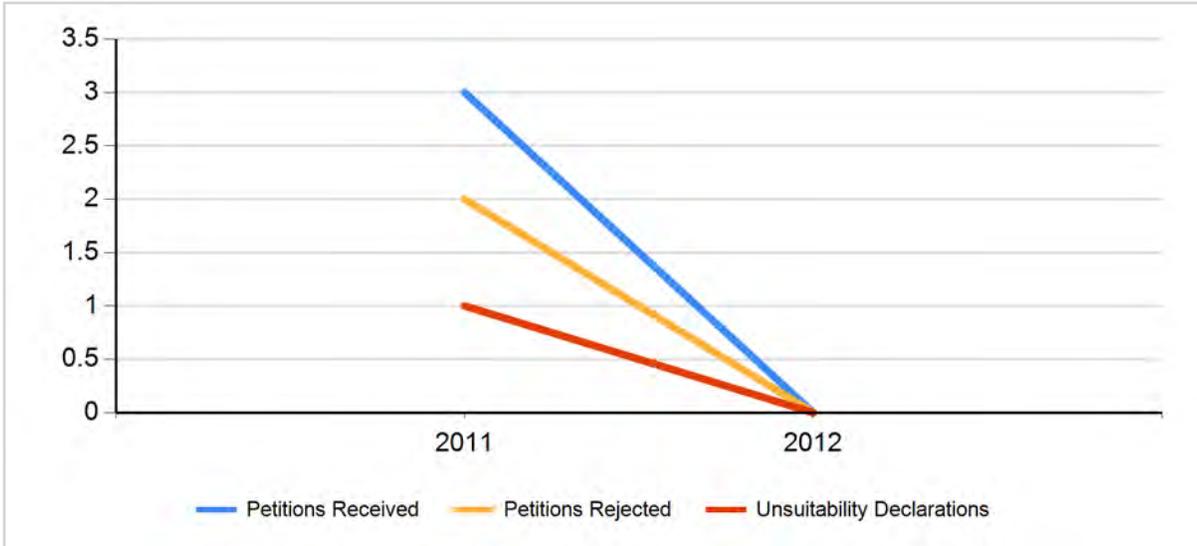


TABLE 12A

LANDS UNSUITABLE ACTIVITY			
Year	Petitions Received	Petitions Rejected	Unsuitability Declarations
2011	3	2	1
2012	0	0	0

**CHART 12B HISTORICAL TRENDS
ACRES DECLARED UNSUITABLE**

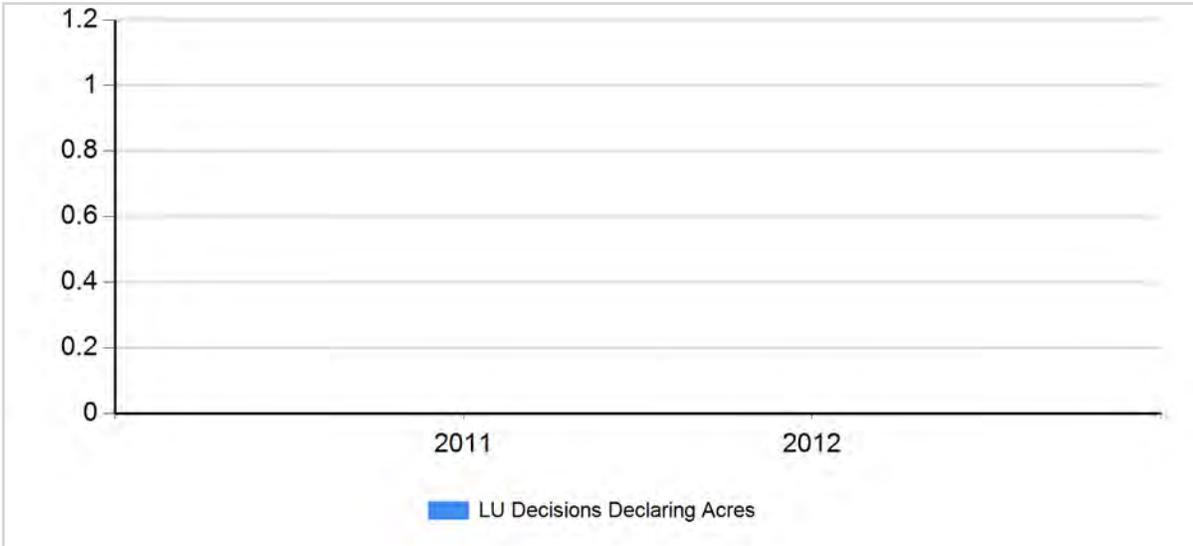


TABLE 12B

ACRES DECLARED UNSUITABLE	
Year	Acres Declared Unsuitable
2011	0.0
2012	0.0

TABLE 13

OSM OVERSIGHT ACTIVITY					
Oversight Inspections and Site Visits					
	Complete		Partial		
	Joint	Non-Joint	Joint	Non-Joint	Total
Oversight Inspections	412	12	105	9	538
	Technical Assistance		Other		Total
Site Visits	4		21		25
Violations Observed by OSM and Citizen Requests for Inspection¹					
Type of Action					Total number of each action
How many violations were observed by OSM on oversight inspections?					483
Of the violations observed, how many did OSM defer to State action during inspections?					153
Of the violations observed, how many did OSM refer to the State through Ten-Day Notices? ²					13
How many Ten-Day Notices did OSM Issue for observed violations? ³					2
How many Ten-Day Notices did OSM issue to refer citizen requests for inspection?					12
How many Notices of Violation did OSM issue?					1
How many Failure-to-Abate Cessation Orders did OSM issue?					0
How many Imminent Harm Cessation Orders did OSM issue?					1
OSM Action for Delinquent Reporting or Non-Payment of Federal AML Reclamation Fees					
How many Ten-Day Notices for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?					0
How many Notices of Violation for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?					0
How many Federal Failure-to-Abate Cessation Orders for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?					0
¹ This section does not include actions for delinquent reporting or non-payment of Federal AML fees that are reported in the last section of the table. ² Number of violations contained in Ten-Day Notices not including those issued to refer citizen requests for inspection. ³ Number of Ten-Day Notices issued not including those to refer citizen requests for inspection.					

**CHART 13A HISTORICAL TRENDS
OSM OVERSIGHT ACTIVITY**

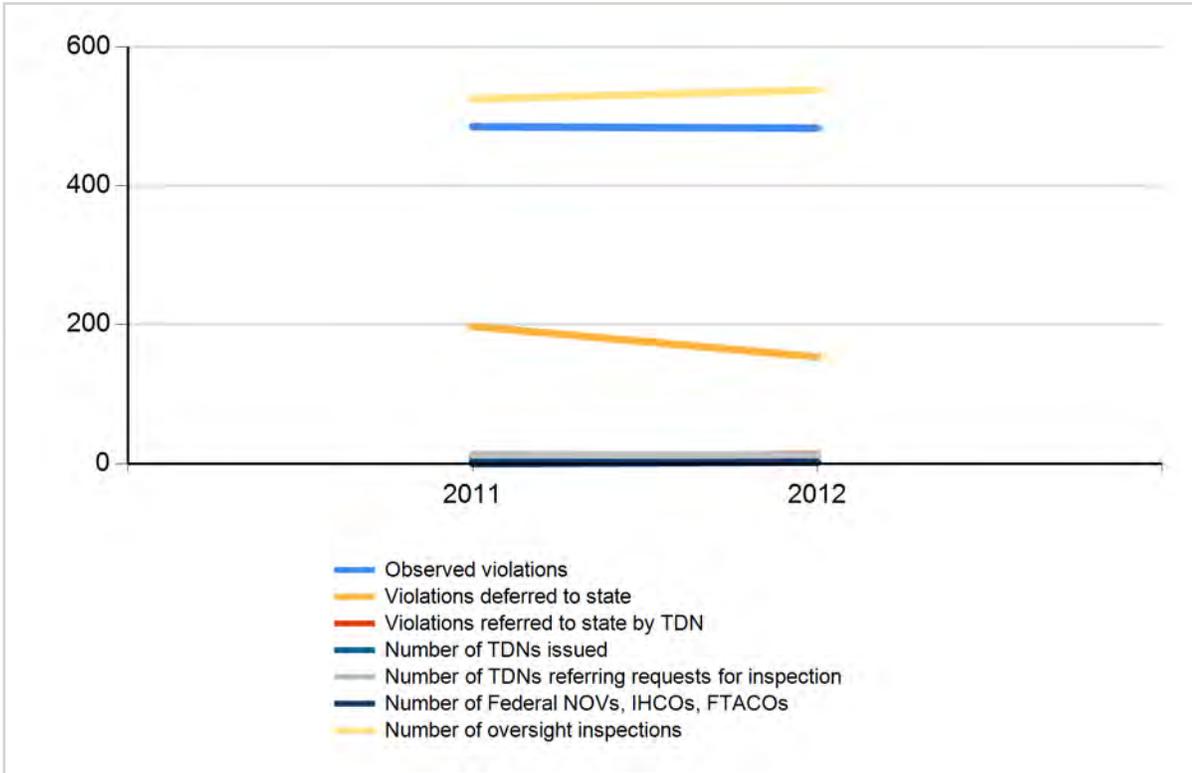


TABLE 13A

OSM OVERSIGHT ACTIVITY							
Year	Number of violations observed on OSM oversight inspections	Number of violations deferred to state action	Number of violations referred to state by TDN	Number of TDN's issued	Number of TDN's issued to refer requests for inspection	Number of Federal NOVs, FTACOs, & IHCOs issued	Number of oversight inspections
2011	485	197	10	4	13	0	525
2012	483	153	13	2	12	2	538

TABLE 14

STATUS OF ACTION PLANS

Action Plan ID	Problem Type ¹	Problem Title	Problem Description	Date Action Plan Initiated	Scheduled Completion Date	Actual Completion Date
169	RP	Bond Determination	Kentucky does not always have sufficient bond to reclaim bond forfeiture sites.	02/03/2011	7/1/2013	

¹ Problem Type: "PA" indicates a required Program change under subchapter T or 732
 "RP" indicates a Regulatory Program implementation or administrative problem

**TABLE 15
(Optional)**

POST-MINING LAND USE ACREAGE OF SITES FULLY RECLAIMED (Phase III bond release or termination of jurisdiction under the Initial Program)	
Land Use¹	Acres Released
Cropland	272.00
Pasture/Hayland	4,644.00
Grazingland	0.00
Forestry	643.00
Residential	107.00
Industrial/Commercial	482.00
Recreation	0.00
Fish & Wildlife Habitat	6,500.00
Developed Water Resources	0.00
Undeveloped land or no current use or land management	0.00
Other - Public Utilities	0.00
Other -	0.00
Sub-Total Other	0.00
Total	12,648.00

¹ Land uses as defined in 30 CFR 701.5 or "Other" as defined under the state or tribal program

**CHART 15A HISTORICAL TRENDS
POST MINING LAND USE ACREAGES**

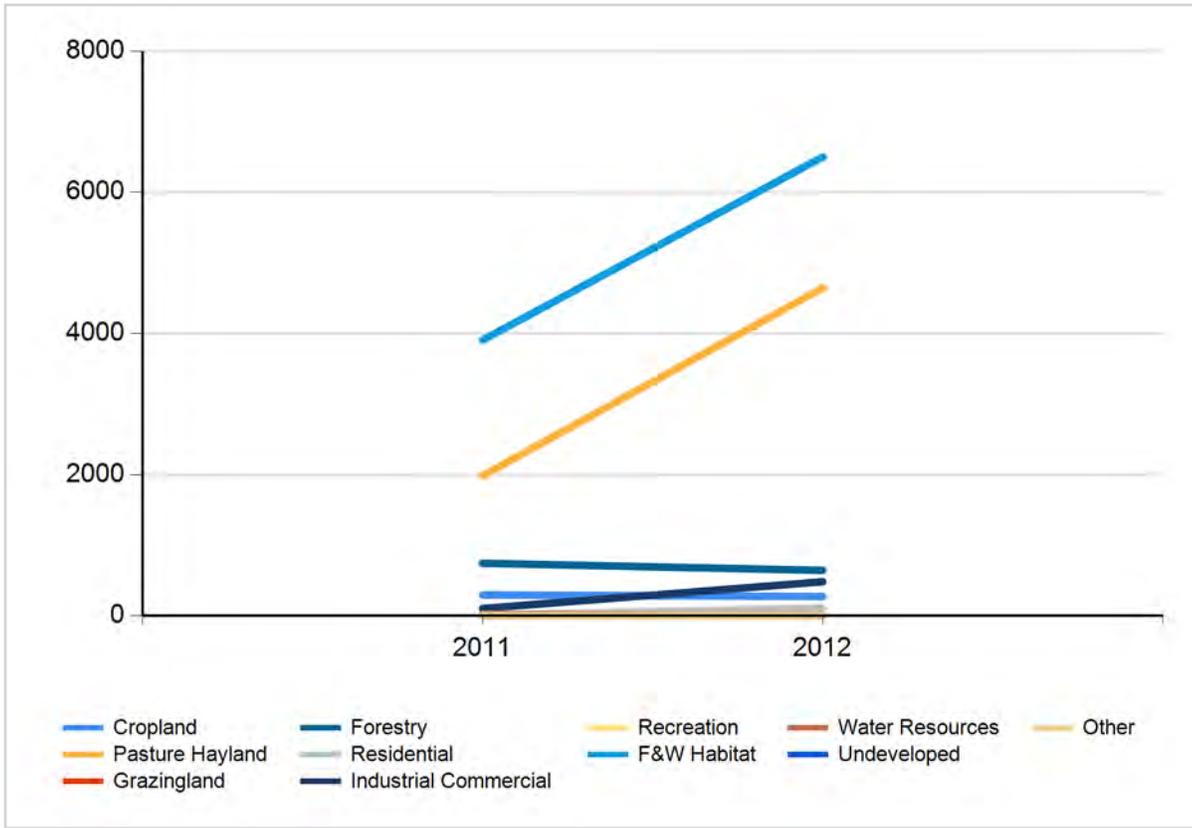


TABLE 15A

POST MINING LAND USE ACREAGES											
Year	Cropland	Pasture Hay	Grazing Land	Forest	Residential	Industrial Comm.	Recreation	F&W Hab.	Water Resources	Undeveloped	Other
2011	296	1984	0	744	10	103	20	3906	17	0	0
2012	272	4644	0	643	107	482	0	6500	0	0	0

APPENDIX C

State Comments on the Report



**ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR NATURAL RESOURCES**



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Secretary

Steve Hohmann
Commissioner

September 12, 2012

Mr. Joseph L. Blackburn, Field Office Director
Office of Surface Mining
2675 Regency Road
Lexington, Kentucky 40503 – 2922

RE: Draft EY 2012 Annual Evaluation Report

Dear Mr. Blackburn:

Reference is made to the draft EY 2012 “30th Annual Evaluation Report” received in this office on August 29, 2012 for review and comment by this agency. DNR agency personnel in the Commissioner’s Office, Division of Abandoned Mine Land (DAML), Division of Mine Permits (DMP) and the Division of Mine Reclamation and Enforcement (DMRE) have reviewed the draft report. Our observations and suggestions were largely editorial in nature so we have already sent our comments to OSM Lexington Field Office personnel for consideration.

As always, we sincerely appreciate the opportunity for review and input. Please feel free to contact this office if you have any questions.

Respectfully,


Steve Hohmann
Commissioner

APPENDIX D

Permittees Issued Non-Compliances by KYDNR

(Listed by Descending Number of Non-Compliances)

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
KENTUCKY FUEL CORPORATION	76	194	35	38	51,429.03	4,694.81
NALLY & HAMILTON ENTERPRISES INC	74	154	37	67	44,746.66	19,385.68
FRASURE CREEK MINING LLC	59	131	30	42	30,659.47	15,026.13
SEQUOIA ENERGY LLC	47	76	19	19	27,741.77	1,114.50
CHAS COAL LLC	37	64	18	1	4,676.18	15.00
LAUREL MOUNTAIN RESOURCES LLC	31	66	19	38	30,361.42	15,257.67
REVELATION ENERGY LLC	29	62	7	23	13,769.70	5,494.60
CAMBRIAN COAL CORPORATION	27	41	10	17	5,966.89	3,993.50
WHYMORE COAL COMPANY INC	23	63	5	5	720.51	354.00
EVANS COAL CORP	21	46	6	6	2,004.06	630.70
SANDLICK COAL COMPANY LLC	21	34	7	13	15,097.01	2,086.38
APPOLO FUELS INC	19	52	9	28	15,324.05	2,226.46
COVOL FUELS NO 3 LLC	17	31	14	14	6,320.44	1,525.00
CAM MINING LLC	15	34	10	29	38,136.74	3,976.27
MCCOY ELKHORN COAL CORPORATION	15	27	10	33	52,387.18	1,152.55
MARTIN COUNTY COAL CORPORATION	14	35	13	41	31,421.36	9,647.71
FCDC COAL INC	14	34	6	29	24,434.71	906.82
FOUR STAR RESOURCES LLC	14	30	6	4	858.69	198.22
ARMSTRONG COAL COMPANY INC	13	14	4	18	26,907.76	3,327.00
BDCC HOLDING COMPANY INC	12	25	9	23	43,840.01	1,322.57
LICKING RIVER RESOURCES INC	12	23	7	13	7,403.78	2,341.00
MANALAPAN MINING COMPANY INC	12	18	8	12	15,943.60	797.32
MATT/CO INC	11	22	5	20	13,061.74	379.47
LCC KENTUCKY LLC	11	18	7	49	27,025.15	14,715.73
CZAR COAL CORPORATION	11	17	6	21	27,997.26	3,636.69
PREMIER ELKHORN COAL COMPANY	11	15	8	43	52,440.73	8,563.40
INFINITY ENERGY, INC	10	33	3	3	1,095.19	450.25
STONE RIDGE RESOURCES INC	10	32	1	1	36.50	14.00
JOHNSON-FLOYD COAL COMPANY LLC	10	23	3	2	434.14	95.00
LANDFALL MINING INCORPORATED	10	18	4	4	101.40	49.30
MOUNTAINSIDE COAL CO INC	10	18	5	5	1,261.70	412.00
B & W RESOURCES INC	10	17	7	14	5,231.99	1,659.70
LEECO INC	10	13	7	18	24,756.00	2,758.72
HOPKINS COUNTY COAL LLC	10	11	8	18	20,927.25	6,055.45
IKERD MINING, LLC	9	25	4	5	1,260.02	601.97
APEX ENERGY INC	9	21	5	23	15,313.80	4,515.80
KENTUCKY PROCESSING COMPANY	9	17	3	3	428.17	395.75
LA ENERGY, LLC	9	16	2	2	607.03	14.13
STURGEON MINING COMPANY INC	9	16	4	9	2,932.73	584.50
DEANE MINING LLC	9	11	6	28	32,682.39	2,436.28
THE RAVEN CO INC	8	32	2	1	636.95	300.00
BEECH CREEK COAL COMPANY, LLC	8	27	3	3	284.20	192.00
ICG HAZARD LLC	8	17	6	49	42,980.27	14,305.81
T & T COAL INC	8	16	5	7	569.82	260.84
CROCKETT COLLIERIES (KY) INC	8	12	3	3	1,388.51	68.11
KANNAN MINING COMPANY	7	16	2	1	154.71	88.17

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
STRONG BROTHERS MINING	7	15	1	1	161.95	105.00
JCMC, LLC	7	14	2	2	213.63	57.00
LOCUST GROVE INC	7	14	3	13	6,148.84	2,391.54
POWELL MOUNTAIN ENERGY LLC	7	7	7	8	15,709.69	123.95
SIDNEY COAL COMPANY INC	6	18	5	43	84,777.49	2,170.42
J R MINING INC	6	15	3	3	224.87	96.00
DAVIS ENERGY, LLC	6	14	3	6	830.32	201.00
COOK AND SONS MINING INC	6	12	3	5	3,352.83	607.50
LEE-PAUL COAL COMPANY INC	6	12	2	2	73.09	54.75
SAND HILL COAL PROCESSING, LLC	6	11	5	8	1,114.25	368.00
BEECH FORK PROCESSING INC	6	10	6	18	17,645.20	2,658.88
RESOURCE LAND COMPANY LLC	6	9	2	2	12,065.14	475.00
HARLAN RECLAMATION SERVICES LLC	6	8	6	19	79,418.44	1,222.94
PONTIKI COAL LLC	6	7	5	7	32,140.50	195.00
KENAMERICAN RESOURCES INC	6	6	3	4	20,012.65	230.00
PETER FORK MINING COMPANY	6	6	6	6	4,653.94	184.89
DENALI ENERGY GROUP LLC	5	19	2	2	287.25	54.00
W & F CONTRACT AUGERING INC	5	17	2	1	37.31	19.00
ENGLE HOLLOW MINING, LLC	5	11	2	1	46.00	20.00
STAFLAND ENERGY LLC	5	11	1	1	317.55	147.00
B & C ENERGY INC	5	9	1	1	331.67	60.00
DIXIE FUEL COMPANY LLC	5	9	2	6	3,795.89	418.32
DUSTY DIAMOND COMPANY INC	5	9	2	1	2,000.31	220.00
GATLIFF COAL COMPANY	5	9	3	6	2,314.76	749.76
COAL OPERATORS 1 LLC	5	8	2	2	421.36	132.00
KENTUCKY KING COAL INC	5	8	1			
D & C MINING CORPORATION	5	7	2	2	211.39	87.75
RICHARDSON FUEL INC	5	7	2	2	2,977.94	10.00
ENTERPRISE MINING COMPANY LLC	5	6	4	29	35,728.46	4,171.21
REX COAL COMPANY INC	5	6	4	6	6,368.99	216.06
ADVANCE ENERGY II, LLC	4	13	1	1	237.09	85.00
GLOBAL ENERGY GROUP LLC	4	13	1			
INDEVA CORP ENERGY, INC	4	13	1	1	747.98	15.00
RIO MINING LLC	4	12	1	1	87.51	17.50
A & G COAL CORPORATION	4	11	2	1	684.42	227.00
ROAD FORK DEVELOPMENT COMPANY INC	4	11	3	10	22,596.25	868.68
WELLMORE COAL CORPORATION	4	10	2	15	13,211.07	393.00
B & B ENERGY LLC	4	9	1	1	53.00	34.00
BLACKFOREST COAL, LLC	4	9	2	2	170.84	55.00
CLINTWOOD ELKHORN MINING COMPANY	4	9	4	46	48,221.75	1,681.15
NEW RIDGE MINING COMPANY	4	9	3	23	17,671.56	2,038.68
TWIN ENERGY LLC	4	9	1	1	232.86	59.00
C & R HOLDING OF EASTERN KENTUCKY LLC	4	8	1	1	176.75	177.00
SID MINING, LLC	4	8	1	1	406.38	0.00
GOOSE CREEK ENERGY, INC.	4	6	2			

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
GREENTHORN LLC	4	6	3	1	1,792.12	1,000.00
RIVER VIEW COAL, LLC	4	6	2	2	25,560.07	845.00
XINERGY CORP	4	6	4	39	21,452.90	6,317.57
EMLYN COAL PROCESSING, LLC	4	5	3	1	12.20	12.20
NFC MINING INC	4	5	3	3	71.07	27.35
SHAMROCK COAL COMPANY INCORPORATED	4	5	2	7	22,060.14	433.05
VIRGINIA FUEL CORPORATION	4	5	3	15	17,749.65	1,061.99
SAPPHIRE COAL COMPANY	4	4	2	13	17,230.03	998.24
BLUE MOUNTAIN MINING, INC	3	13	2	2	94.33	27.00
B & R CONSTRUCTION	3	12	2	1	9.22	3.00
CLOVERFORK MINING & EXCAVATING INC	3	12	2	5	2,721.64	1,337.67
MONTIES RESOURCES LLC	3	11	2	2	337.13	69.00
XCELL ENERGY AND COAL COMPANY, LLC	3	9	1	1	377.16	190.00
BLED SOE COAL CORPORATION	3	8	3	23	33,615.58	2,525.77
NOBLE COAL LLC	3	8	1	1	96.82	22.00
BELL COUNTY COAL CORPORATION	3	7	3	13	21,819.76	598.40
AUXIER ENERGY, LLC	3	6	1	1	19.78	15.00
BINGHAM COAL RESOURCES, LLC	3	6	2	2	435.41	100.00
DEKALB RECOVERY INC	3	6	2	2	225.32	7.68
HEARTLAND ESTATES INC	3	6	1	1	6.48	4.00
KINCAID ENTERPRISES	3	6	1	1	183.77	75.00
R & T COAL CO INC	3	6	1	1	7.08	4.50
CHEYENNE RESOURCES INC	3	5	3	6	3,089.47	2,251.83
GIRDNER MINING COMPANY INC	3	5	2	2	539.45	27.00
HARLAN-CUMBERLAND COAL COMPANY LLC	3	5	2	5	13,906.33	457.79
ICG EAST KENTUCKY LLC	3	5	2	5	3,482.73	2,545.80
P C & H CONSTRUCTION INC	3	5	1	1	1,498.85	450.00
CUMBERLAND RIVER COAL COMPANY	3	4	2	10	23,208.42	3,992.00
CUMBERLAND VALLEY MINING COMPANY	3	4	1	1	1,356.00	4.00
DEMA COAL COMPANY INC	3	4	2	2	990.60	6.43
DON BOWLES COAL NO 1, LLC	3	4	2	2	377.80	289.00
MASSIVE MINING INC	3	4	1			
PETER CAVE MINING COMPANY	3	4	3	5	14,958.31	860.71
VIKING ACQUISITION GROUP LLC	3	4	3	3	803.52	195.00
WESTERN KENTUCKY MINERALS, INC	3	4	3	3	1,249.70	512.00
ALLIED RESOURCES INC	3	3	2			
C & R COAL COMPANY INC	3	3	2	3	797.90	475.00
PATRIOT COAL COMPANY, LP	3	3	1	15	27,375.74	3,698.80
THE ELK HORN COAL COMPANY LLC	3	3	3	10	14,398.89	261.36
WOLVERINE RESOURCES INC	3	3	2	5	1,630.29	783.00
EXECUTIVE COAL LLC	2	15	2	2	92.62	52.14
POWELL BRANCH ENERGY LLC	2	10	1	1	240.64	3.74
PHOENIX RESOURCES, LLC	2	9	1	1	114.80	70.00
RED BUSH COAL, LLC	2	8	1	1	62.00	18.00

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
ROBERT MCKEEHAN	2	8	1	1	5.30	3.30
UNITED FARMING INC	2	8	2	3	434.32	187.85
MCPEEK ENERGY INC	2	7	1	1	247.06	14.00
REED CONSTRUCTION, INC.	2	7	2			
STEVEN D SINGLETON	2	7	1	1	91.00	22.00
HANNAH COAL CORPORATION	2	5	1	1	174.61	115.20
NORTH AMERICAN GEM US INC	2	5	1	2	519.49	34.00
PICK & SHOVEL MINING	2	5	1	1	281.58	30.00
TWILIGHT ENERGY, LLC	2	5	1	1	24.09	15.59
WENDELL ROBERTS	2	5	1	1	7.42	2.00
B R C COAL COMPANY INCORPORATED	2	4	1	1	479.74	325.96
DCM RESOURCE ENERGIES INC	2	4	1	1	30.70	10.00
DEEP WOOD MINING LLC	2	4	1			
H B & S COAL COMPANY INC	2	4	1	1	95.30	25.00
ISLAND CREEK COAL COMPANY	2	4	2	2	18,030.60	460.00
JOSHUA ENTERPRISES, INC	2	4	1	1	166.10	120.00
NAV-VET TRUCKING COMPANY LLC	2	4	1	1	46.18	19.00
NORTH FORK COLLIERIES, LLC	2	4	1			
RICHARD COLLINS	2	4	1	1	32.70	3.00
ROBINSON COAL COMPANY, INC	2	4	2	2	26.08	8.40
SAFECO, INC	2	4	1	1	19.00	9.16
VONDA COAL COMPANY INC	2	4	1			
ALDEN RESOURCES LLC	2	3	2	19	9,317.94	1,200.50
BETHEL COAL COMPANY, INC	2	3	1	2	171.80	56.00
CORBIN MINING LLC	2	3	1	2	645.13	55.00
HERITAGE COAL COMPANY LLC	2	3	1	3	29,418.85	2,309.90
HOPKINS COAL COMPANY	2	3	1	1	170.50	48.82
MILL CREEK MINING INC	2	3	1	1	3,006.00	7.00
P B DIRT MOVERS INC	2	3	1	1	8.90	6.00
CYPRUS CREEK LAND COMPANY	2	2	2	2	1,069.00	512.80
DETHERAGE MINERALS INC	2	2	1	1	279.69	250.00
HENDRICKSON EQUIPMENT INC	2	2	1	1	110.10	38.00
NEW TRUCKERS COAL MARKET INC	2	2	1	1	4.44	4.40
OXFORD MINING COMPANY KENTUCKY LLC	2	2	2	7	5,494.30	2,243.13
PBP ENERGY, LLC	2	2	1	1	218.60	161.00
PHOENIX COAL PROCESSING COMPANY, LLC	2	2	1	1	115.29	80.00
PLEASANT VIEW MINING CO INC	2	2	1			
PREMIUM ELKHORN COAL CORPORATION	2	2	2	1	461.22	1.11
STRATA MINING INC	2	2	2	4	1,362.73	1,060.00
WEBSTER COUNTY COAL LLC	2	2	2	8	56,483.92	548.60
LAUREL HILLS INVESTMENTS, INC.	1	7	1	1	22.10	22.00
L & J DREDGING COMPANY INC	1	5	1	1	5.94	5.94
MC MINING LLC	1	5	1	4	10,214.12	193.00
ROCKCASTLE MINING COMPANY INC	1	5	1	1	136.80	112.44
L & R COALS	1	4	1	1	43.20	4.50

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
BLACK FIRE COAL COMPANY LLC	1	3	1	1	181.39	16.00
CNS MINING INC	1	3	1			
CONSOL OF KENTUCKY INC	1	3	1	1	1,940.83	72.63
COVENANT COAL CORPORATION INC	1	3	1	1	378.70	19.00
D & H COAL COMPANY OF LAUREL COUNTY INC	1	3	1	1	58.40	57.00
JAG ENERGY LLC	1	3	1			
MASON COAL INC	1	3	1	2	1,925.95	9.50
MEADOW FORK MINING CO LLC	1	3	1	1	427.08	300.00
MOUNTAIN STATES LAND DEVELOPMENT INC	1	3	1	1	33.49	2.12
PINNACLE COAL CORPORATION	1	3	1	1	5.90	5.90
2 MILE COAL LLC	1	2	1			
BROKEN RIDGE LLC	1	2	1	1	258.42	155.00
CHAROLAIS MINING COMPANY, LLC	1	2	1	1	516.20	453.40
CLIFFS LOGAN COUNTY COAL TERMINALS LLC	1	2	1	1	7.38	7.00
D & R COAL INC	1	2	1	1	211.95	12.00
E & J CORPORATION INC	1	2	1	1	5.50	5.50
EBW ENTERPRISES, INC	1	2	1			
ELMO GREER & SONS LLC	1	2	1	1	1.90	1.90
GRAY'S EXCAVATING INC	1	2	1	1	7.71	2.50
GWENCO INC	1	2	1	1	615.30	4.00
HI-GROUND DEVELOPMENT LLC	1	2	1	1	54.20	10.00
HOWARD BROTHERS EXCAVATING INC	1	2	1	1	58.23	35.00
HYLTON & WILLIAMS COAL COMPANY INC	1	2	1	1	64.00	8.50
INR TERMINALS, LLC	1	2	1			
J & M EQUIPMENT AND CONSTRUCTION CO INC	1	2	1	1	97.17	94.70
JERICOL MINING INC	1	2	1			
JOSHUA L WAGERS	1	2	1	1	145.50	0.00
M & T LOGGING INC	1	2	1	1	94.00	15.00
PENNYRILE COAL CO INC	1	2	1	1	514.90	71.80
ROCKHAMPTON ENERGY LLC	1	2	1	2	3,052.00	37.00
SAND HILL COAL PROCESSING CO	1	2	1	1	53.75	17.00
SKYLINE EXCAVATION INC	1	2	1	1	201.90	115.00
TERRY GLENN COAL COMPANY	1	2	1	1	129.33	1.96
WHM MINERAL HOLDINGS, LLC	1	2	1	1	2,083.81	30.00
APOLLO COAL COMPANY	1	1	1	3	586.74	28.47
BELFRY COAL CORPORATION	1	1	1	5	5,324.47	165.73
BIG K PROCESSING, INC	1	1	1	1	3.62	3.62
BLACKSTONE COAL CO LLC	1	1	1	1	234.60	104.09
BSDI LLC	1	1	1	1	32.23	25.00
C T & L COAL COMPANY	1	1	1	1	127.76	70.00
COAL EQUITY INC	1	1	1	1	8.49	7.32
COCHISE COAL COMPANY INC	1	1	1			
COVOL FUELS NO 2 LLC	1	1	1	1	3,339.93	426.73
CRITTENDEN COUNTY COAL INC	1	1	1	2	7,092.70	417.76

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
D & J COAL COMPANY LLC	1	1	1	5	1,515.42	339.00
DAVENPORT COAL COMPANY, LLC	1	1	1	1	25.30	14.00
DENHAM & LEWIS PROCESSING INC	1	1	1	1	5.00	5.00
ED GAUNT	1	1	1	1	2.50	2.50
GREASY MINING LLC	1	1	1	1	136.92	28.00
GREYEAGLE COAL COMPANY INC	1	1	1	3	4,809.64	20.39
HALL & JONES COAL COMPANY	1	1	1	1	382.93	0.93
IBCS MINING INC KENTUCKY DIVISION	1	1	1	1	188.44	50.00
J C & P COAL CORPORATION	1	1	1	1	583.38	1.08
KINCAID ENTERPRISES INC	1	1	1	2	188.90	83.00
KING BROTHERS COAL INC	1	1	1	2	1,596.51	20.47
KWV OPERATIONS LLC	1	1	1	2	2,855.44	23.00
LDH ENERGY SLONES BRANCH TERMINAL LLC	1	1	1	1	16.38	15.00
LOGAN GAP DEVELOPMENT CO., INC.	1	1	1	1	62.35	15.00
LONG FORK COAL COMPANY	1	1	1	3	2,775.72	285.94
MEADOW BRANCH COAL, LLC	1	1	1	1	4,270.48	0.00
MILL BRANCH MINING COMPANY INC	1	1	1	1	220.35	7.60
NOBLE CONSTRUCTION	1	1	1	1	55.15	30.00
OWENSBORO RIVER SAND AND GRAVEL COMPANY	1	1	1	1	16.40	9.10
PINE BRANCH COAL SALES INC	1	1	1	13	6,923.10	4,981.81
POMPEY COAL CORPORATION	1	1	1	5	2,263.35	1,520.00
POND RIVER COAL LLC	1	1	1	1	323.90	95.00
RANDY-D, LLC	1	1	1	1	901.79	6.00
RED FLAME COAL COMPANY	1	1	1	1	950.70	7.00
ROADWAY UNLIMITED LLC	1	1	1	1	223.30	50.00
SMITH PROCESSING COMPANY	1	1	1	2	16.70	16.50
STEAMPORT, LLC	1	1	1	2	36.00	36.00
THOROUGHbred MINING COMPANY LLC	1	1	1	1	11,091.44	0.00

APPENDIX E

Permittees Issued Non-Compliances by KYDNR

(Alphabetical Listing)

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
2 MILE COAL LLC	1	2	1			
A & G COAL CORPORATION	4	11	2	1	684.42	227.00
ADVANCE ENERGY II, LLC	4	13	1	1	237.09	85.00
ALDEN RESOURCES LLC	2	3	2	19	9,317.94	1,200.50
ALLIED RESOURCES INC	3	3	2			
APEX ENERGY INC	9	21	5	23	15,313.80	4,515.80
APOLLO COAL COMPANY	1	1	1	3	586.74	28.47
APPOLO FUELS INC	19	52	9	28	15,324.05	2,226.46
ARMSTRONG COAL COMPANY INC	13	14	4	18	26,907.76	3,327.00
AUXIER ENERGY, LLC	3	6	1	1	19.78	15.00
B & B ENERGY LLC	4	9	1	1	53.00	34.00
B & C ENERGY INC	5	9	1	1	331.67	60.00
B & R CONSTRUCTION	3	12	2	1	9.22	3.00
B & W RESOURCES INC	10	17	7	14	5,231.99	1,659.70
B R C COAL COMPANY INCORPORATED	2	4	1	1	479.74	325.96
BDCC HOLDING COMPANY INC	12	25	9	23	43,840.01	1,322.57
BEECH CREEK COAL COMPANY, LLC	8	27	3	3	284.20	192.00
BEECH FORK PROCESSING INC	6	10	6	18	17,645.20	2,658.88
BELFRY COAL CORPORATION	1	1	1	5	5,324.47	165.73
BELL COUNTY COAL CORPORATION	3	7	3	13	21,819.76	598.40
BETHEL COAL COMPANY, INC	2	3	1	2	171.80	56.00
BIG K PROCESSING, INC	1	1	1	1	3.62	3.62
BINGHAM COAL RESOURCES, LLC	3	6	2	2	435.41	100.00
BLACK FIRE COAL COMPANY LLC	1	3	1	1	181.39	16.00
BLACKFOREST COAL, LLC	4	9	2	2	170.84	55.00
BLACKSTONE COAL CO LLC	1	1	1	1	234.60	104.09
BLED SOE COAL CORPORATION	3	8	3	23	33,615.58	2,525.77
BLUE MOUNTAIN MINING, INC	3	13	2	2	94.33	27.00
BROKEN RIDGE LLC	1	2	1	1	258.42	155.00
BSD1 LLC	1	1	1	1	32.23	25.00
C & R COAL COMPANY INC	3	3	2	3	797.90	475.00
C & R HOLDING OF EASTERN KENTUCKY LLC	4	8	1	1	176.75	177.00
C T & L COAL COMPANY	1	1	1	1	127.76	70.00
CAM MINING LLC	15	34	10	29	38,136.74	3,976.27
CAMBRIAN COAL CORPORATION	27	41	10	17	5,966.89	3,993.50
CHAROLAIS MINING COMPANY, LLC	1	2	1	1	516.20	453.40
CHAS COAL LLC	37	64	18	1	4,676.18	15.00
CHEYENNE RESOURCES INC	3	5	3	6	3,089.47	2,251.83
CLIFFS LOGAN COUNTY COAL TERMINALS LLC	1	2	1	1	7.38	7.00
CLINTWOOD ELKHORN MINING COMPANY	4	9	4	46	48,221.75	1,681.15
CLOVERFORK MINING & EXCAVATING INC	3	12	2	5	2,721.64	1,337.67
CNS MINING INC	1	3	1			
COAL EQUITY INC	1	1	1	1	8.49	7.32
COAL OPERATORS 1 LLC	5	8	2	2	421.36	132.00
COCHISE COAL COMPANY INC	1	1	1			

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
CONSOL OF KENTUCKY INC	1	3	1	1	1,940.83	72.63
COOK AND SONS MINING INC	6	12	3	5	3,352.83	607.50
CORBIN MINING LLC	2	3	1	2	645.13	55.00
COVENANT COAL CORPORATION INC	1	3	1	1	378.70	19.00
COVOL FUELS NO 2 LLC	1	1	1	1	3,339.93	426.73
COVOL FUELS NO 3 LLC	17	31	14	14	6,320.44	1,525.00
CRITTENDEN COUNTY COAL INC	1	1	1	2	7,092.70	417.76
CROCKETT COLLIERIES (KY) INC	8	12	3	3	1,388.51	68.11
CUMBERLAND RIVER COAL COMPANY	3	4	2	10	23,208.42	3,992.00
CUMBERLAND VALLEY MINING COMPANY	3	4	1	1	1,356.00	4.00
CYPRUS CREEK LAND COMPANY	2	2	2	2	1,069.00	512.80
CZAR COAL CORPORATION	11	17	6	21	27,997.26	3,636.69
D & C MINING CORPORATION	5	7	2	2	211.39	87.75
D & H COAL COMPANY OF LAUREL COUNTY INC	1	3	1	1	58.40	57.00
D & J COAL COMPANY LLC	1	1	1	5	1,515.42	339.00
D & R COAL INC	1	2	1	1	211.95	12.00
DAVENPORT COAL COMPANY, LLC	1	1	1	1	25.30	14.00
DAVIS ENERGY, LLC	6	14	3	6	830.32	201.00
DCM RESOURCE ENERGIES INC	2	4	1	1	30.70	10.00
DEANE MINING LLC	9	11	6	28	32,682.39	2,436.28
DEEP WOOD MINING LLC	2	4	1			
DEKALB RECOVERY INC	3	6	2	2	225.32	7.68
DEMA COAL COMPANY INC	3	4	2	2	990.60	6.43
DENALI ENERGY GROUP LLC	5	19	2	2	287.25	54.00
DENHAM & LEWIS PROCESSING INC	1	1	1	1	5.00	5.00
DETHERAGE MINERALS INC	2	2	1	1	279.69	250.00
DIXIE FUEL COMPANY LLC	5	9	2	6	3,795.89	418.32
DON BOWLES COAL NO 1, LLC	3	4	2	2	377.80	289.00
DUSTY DIAMOND COMPANY INC	5	9	2	1	2,000.31	220.00
E & J CORPORATION INC	1	2	1	1	5.50	5.50
EBW ENTERPRISES, INC	1	2	1			
ED GAUNT	1	1	1	1	2.50	2.50
ELMO GREER & SONS LLC	1	2	1	1	1.90	1.90
EMLYN COAL PROCESSING, LLC	4	5	3	1	12.20	12.20
ENGLE HOLLOW MINING, LLC	5	11	2	1	46.00	20.00
ENTERPRISE MINING COMPANY LLC	5	6	4	29	35,728.46	4,171.21
EVANS COAL CORP	21	46	6	6	2,004.06	630.70
EXECUTIVE COAL LLC	2	15	2	2	92.62	52.14
FCDC COAL INC	14	34	6	29	24,434.71	906.82
FOUR STAR RESOURCES LLC	14	30	6	4	858.69	198.22
FRASURE CREEK MINING LLC	59	131	30	42	30,659.47	15,026.13
GATLIFF COAL COMPANY	5	9	3	6	2,314.76	749.76
GIRDNER MINING COMPANY INC	3	5	2	2	539.45	27.00
GLOBAL ENERGY GROUP LLC	4	13	1			
GOOSE CREEK ENERGY, INC.	4	6	2			

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
GRAY'S EXCAVATING INC	1	2	1	1	7.71	2.50
GREASY MINING LLC	1	1	1	1	136.92	28.00
GREENTHORN LLC	4	6	3	1	1,792.12	1,000.00
GREYEAGLE COAL COMPANY INC	1	1	1	3	4,809.64	20.39
GWENCO INC	1	2	1	1	615.30	4.00
H B & S COAL COMPANY INC	2	4	1	1	95.30	25.00
HALL & JONES COAL COMPANY	1	1	1	1	382.93	0.93
HANNAH COAL CORPORATION	2	5	1	1	174.61	115.20
HARLAN RECLAMATION SERVICES LLC	6	8	6	19	79,418.44	1,222.94
HARLAN-CUMBERLAND COAL COMPANY LLC	3	5	2	5	13,906.33	457.79
HEARTLAND ESTATES INC	3	6	1	1	6.48	4.00
HENDRICKSON EQUIPMENT INC	2	2	1	1	110.10	38.00
HERITAGE COAL COMPANY LLC	2	3	1	3	29,418.85	2,309.90
HI-GROUND DEVELOPMENT LLC	1	2	1	1	54.20	10.00
HOPKINS COAL COMPANY	2	3	1	1	170.50	48.82
HOPKINS COUNTY COAL LLC	10	11	8	18	20,927.25	6,055.45
HOWARD BROTHERS EXCAVATING INC	1	2	1	1	58.23	35.00
HYLTON & WILLIAMS COAL COMPANY INC	1	2	1	1	64.00	8.50
IBCS MINING INC KENTUCKY DIVISION	1	1	1	1	188.44	50.00
ICG EAST KENTUCKY LLC	3	5	2	5	3,482.73	2,545.80
ICG HAZARD LLC	8	17	6	49	42,980.27	14,305.81
IKERD MINING, LLC	9	25	4	5	1,260.02	601.97
INDEVA CORP ENERGY, INC	4	13	1	1	747.98	15.00
INFINITY ENERGY, INC	10	33	3	3	1,095.19	450.25
INR TERMINALS, LLC	1	2	1			
ISLAND CREEK COAL COMPANY	2	4	2	2	18,030.60	460.00
J & M EQUIPMENT AND CONSTRUCTION CO INC	1	2	1	1	97.17	94.70
J C & P COAL CORPORATION	1	1	1	1	583.38	1.08
J R MINING INC	6	15	3	3	224.87	96.00
JAG ENERGY LLC	1	3	1			
JCMC, LLC	7	14	2	2	213.63	57.00
JERICOL MINING INC	1	2	1			
JOHNSON-FLOYD COAL COMPANY LLC	10	23	3	2	434.14	95.00
JOSHUA ENTERPRISES, INC	2	4	1	1	166.10	120.00
JOSHUA L WAGERS	1	2	1	1	145.50	0.00
KANNAN MINING COMPANY	7	16	2	1	154.71	88.17
KENAMERICAN RESOURCES INC	6	6	3	4	20,012.65	230.00
KENTUCKY FUEL CORPORATION	76	194	35	38	51,429.03	4,694.81
KENTUCKY KING COAL INC	5	8	1			
KENTUCKY PROCESSING COMPANY	9	17	3	3	428.17	395.75
KINCAID ENTERPRISES	3	6	1	1	183.77	75.00
KINCAID ENTERPRISES INC	1	1	1	2	188.90	83.00
KING BROTHERS COAL INC	1	1	1	2	1,596.51	20.47
KWV OPERATIONS LLC	1	1	1	2	2,855.44	23.00
L & J DREDGING COMPANY INC	1	5	1	1	5.94	5.94

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
L & R COALS	1	4	1	1	43.20	4.50
LA ENERGY, LLC	9	16	2	2	607.03	14.13
LANDFALL MINING INCORPORATED	10	18	4	4	101.40	49.30
LAUREL HILLS INVESTMENTS, INC.	1	7	1	1	22.10	22.00
LAUREL MOUNTAIN RESOURCES LLC	31	66	19	38	30,361.42	15,257.67
LCC KENTUCKY LLC	11	18	7	49	27,025.15	14,715.73
LDH ENERGY SLONES BRANCH TERMINAL LLC	1	1	1	1	16.38	15.00
LEE-PAUL COAL COMPANY INC	6	12	2	2	73.09	54.75
LEECO INC	10	13	7	18	24,756.00	2,758.72
LICKING RIVER RESOURCES INC	12	23	7	13	7,403.78	2,341.00
LOCUST GROVE INC	7	14	3	13	6,148.84	2,391.54
LOGAN GAP DEVELOPMENT CO., INC.	1	1	1	1	62.35	15.00
LONG FORK COAL COMPANY	1	1	1	3	2,775.72	285.94
M & T LOGGING INC	1	2	1	1	94.00	15.00
MANALAPAN MINING COMPANY INC	12	18	8	12	15,943.60	797.32
MARTIN COUNTY COAL CORPORATION	14	35	13	41	31,421.36	9,647.71
MASON COAL INC	1	3	1	2	1,925.95	9.50
MASSIVE MINING INC	3	4	1			
MATT/CO INC	11	22	5	20	13,061.74	379.47
MC MINING LLC	1	5	1	4	10,214.12	193.00
MCCOY ELKHORN COAL CORPORATION	15	27	10	33	52,387.18	1,152.55
MCPEEK ENERGY INC	2	7	1	1	247.06	14.00
MEADOW BRANCH COAL, LLC	1	1	1	1	4,270.48	0.00
MEADOW FORK MINING CO LLC	1	3	1	1	427.08	300.00
MILL BRANCH MINING COMPANY INC	1	1	1	1	220.35	7.60
MILL CREEK MINING INC	2	3	1	1	3,006.00	7.00
MONTIES RESOURCES LLC	3	11	2	2	337.13	69.00
MOUNTAIN STATES LAND DEVELOPMENT INC	1	3	1	1	33.49	2.12
MOUNTAINSIDE COAL CO INC	10	18	5	5	1,261.70	412.00
NALLY & HAMILTON ENTERPRISES INC	74	154	37	67	44,746.66	19,385.68
NAV-VET TRUCKING COMPANY LLC	2	4	1	1	46.18	19.00
NEW RIDGE MINING COMPANY	4	9	3	23	17,671.56	2,038.68
NEW TRUCKERS COAL MARKET INC	2	2	1	1	4.44	4.40
NFC MINING INC	4	5	3	3	71.07	27.35
NOBLE COAL LLC	3	8	1	1	96.82	22.00
NOBLE CONSTRUCTION	1	1	1	1	55.15	30.00
NORTH AMERICAN GEM US INC	2	5	1	2	519.49	34.00
NORTH FORK COLLIERIES, LLC	2	4	1			
OWENSBORO RIVER SAND AND GRAVEL COMPANY	1	1	1	1	16.40	9.10
OXFORD MINING COMPANY KENTUCKY LLC	2	2	2	7	5,494.30	2,243.13
P B DIRT MOVERS INC	2	3	1	1	8.90	6.00
P C & H CONSTRUCTION INC	3	5	1	1	1,498.85	450.00
PATRIOT COAL COMPANY, LP	3	3	1	15	27,375.74	3,698.80
PBP ENERGY, LLC	2	2	1	1	218.60	161.00
PENNYRILE COAL CO INC	1	2	1	1	514.90	71.80

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
PETER CAVE MINING COMPANY	3	4	3	5	14,958.31	860.71
PETER FORK MINING COMPANY	6	6	6	6	4,653.94	184.89
PHOENIX COAL PROCESSING COMPANY, LLC	2	2	1	1	115.29	80.00
PHOENIX RESOURCES, LLC	2	9	1	1	114.80	70.00
PICK & SHOVEL MINING	2	5	1	1	281.58	30.00
PINE BRANCH COAL SALES INC	1	1	1	13	6,923.10	4,981.81
PINNACLE COAL CORPORATION	1	3	1	1	5.90	5.90
PLEASANT VIEW MINING CO INC	2	2	1			
POMPEY COAL CORPORATION	1	1	1	5	2,263.35	1,520.00
POND RIVER COAL LLC	1	1	1	1	323.90	95.00
PONTIKI COAL LLC	6	7	5	7	32,140.50	195.00
POWELL BRANCH ENERGY LLC	2	10	1	1	240.64	3.74
POWELL MOUNTAIN ENERGY LLC	7	7	7	8	15,709.69	123.95
PREMIER ELKHORN COAL COMPANY	11	15	8	43	52,440.73	8,563.40
PREMIUM ELKHORN COAL CORPORATION	2	2	2	1	461.22	1.11
R & T COAL CO INC	3	6	1	1	7.08	4.50
RANDY-D, LLC	1	1	1	1	901.79	6.00
RED BUSH COAL, LLC	2	8	1	1	62.00	18.00
RED FLAME COAL COMPANY	1	1	1	1	950.70	7.00
REED CONSTRUCTION, INC.	2	7	2			
RESOURCE LAND COMPANY LLC	6	9	2	2	12,065.14	475.00
REVELATION ENERGY LLC	29	62	7	23	13,769.70	5,494.60
REX COAL COMPANY INC	5	6	4	6	6,368.99	216.06
RICHARD COLLINS	2	4	1	1	32.70	3.00
RICHARDSON FUEL INC	5	7	2	2	2,977.94	10.00
RIO MINING LLC	4	12	1	1	87.51	17.50
RIVER VIEW COAL, LLC	4	6	2	2	25,560.07	845.00
ROAD FORK DEVELOPMENT COMPANY INC	4	11	3	10	22,596.25	868.68
ROADWAY UNLIMITED LLC	1	1	1	1	223.30	50.00
ROBERT MCKEEHAN	2	8	1	1	5.30	3.30
ROBINSON COAL COMPANY, INC	2	4	2	2	26.08	8.40
ROCKCASTLE MINING COMPANY INC	1	5	1	1	136.80	112.44
ROCKHAMPTON ENERGY LLC	1	2	1	2	3,052.00	37.00
SAFECO, INC	2	4	1	1	19.00	9.16
SAND HILL COAL PROCESSING CO	1	2	1	1	53.75	17.00
SAND HILL COAL PROCESSING, LLC	6	11	5	8	1,114.25	368.00
SANDLICK COAL COMPANY LLC	21	34	7	13	15,097.01	2,086.38
SAPPHIRE COAL COMPANY	4	4	2	13	17,230.03	998.24
SEQUOIA ENERGY LLC	47	76	19	19	27,741.77	1,114.50
SHAMROCK COAL COMPANY INCORPORATED	4	5	2	7	22,060.14	433.05
SID MINING, LLC	4	8	1	1	406.38	0.00
SIDNEY COAL COMPANY INC	6	18	5	43	84,777.49	2,170.42
SKYLINE EXCAVATION INC	1	2	1	1	201.90	115.00
SMITH PROCESSING COMPANY	1	1	1	2	16.70	16.50
STAFLAND ENERGY LLC	5	11	1	1	317.55	147.00

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
STEAMPORT, LLC	1	1	1	2	36.00	36.00
STEVEN D SINGLETON	2	7	1	1	91.00	22.00
STONE RIDGE RESOURCES INC	10	32	1	1	36.50	14.00
STRATA MINING INC	2	2	2	4	1,362.73	1,060.00
STRONG BROTHERS MINING	7	15	1	1	161.95	105.00
STURGEON MINING COMPANY INC	9	16	4	9	2,932.73	584.50
T & T COAL INC	8	16	5	7	569.82	260.84
TERRY GLENN COAL COMPANY	1	2	1	1	129.33	1.96
THE ELK HORN COAL COMPANY LLC	3	3	3	10	14,398.89	261.36
THE RAVEN CO INC	8	32	2	1	636.95	300.00
THOROUGHbred MINING COMPANY LLC	1	1	1	1	11,091.44	0.00
TWILIGHT ENERGY, LLC	2	5	1	1	24.09	15.59
TWIN ENERGY LLC	4	9	1	1	232.86	59.00
UNITED FARMING INC	2	8	2	3	434.32	187.85
VIKING ACQUISITION GROUP LLC	3	4	3	3	803.52	195.00
VIRGINIA FUEL CORPORATION	4	5	3	15	17,749.65	1,061.99
VONDA COAL COMPANY INC	2	4	1			
W & F CONTRACT AUGERING INC	5	17	2	1	37.31	19.00
WEBSTER COUNTY COAL LLC	2	2	2	8	56,483.92	548.60
WELLMORE COAL CORPORATION	4	10	2	15	13,211.07	393.00
WENDELL ROBERTS	2	5	1	1	7.42	2.00
WESTERN KENTUCKY MINERALS, INC	3	4	3	3	1,249.70	512.00
WHM MINERAL HOLDINGS, LLC	1	2	1	1	2,083.81	30.00
WHYMORE COAL COMPANY INC	23	63	5	5	720.51	354.00
WOLVERINE RESOURCES INC	3	3	2	5	1,630.29	783.00
XCELL ENERGY AND COAL COMPANY, LLC	3	9	1	1	377.16	190.00
XINERGY CORP	4	6	4	39	21,452.90	6,317.57