

2017

Office of Surface Mining
Reclamation and Enforcement

The Kentucky
Department for
Natural Resources

Annual Evaluation Report



Prepared by:
The Lexington Field Office



This page is intentionally blank.

**OFFICE OF SURFACE MINING RECLAMATION AND
ENFORCEMENT**

Annual Evaluation Report

for the

Regulatory and Abandoned Mine Land Programs

Administered by Department for Natural Resources

of

KENTUCKY

for

Evaluation Year 2017

July 1, 2016 to June 30, 2017

Prepared by

Lexington Field Office

August 2017

This page is intentionally blank.

Executive Summary

This 2017 Annual Evaluation Report contains information regarding the effectiveness of the Kentucky Department for Natural Resources (KYDNR) in the implementation of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) during the period of July 1, 2016, through June 30, 2017. The Office of Surface Mining Reclamation and Enforcement (OSMRE) oversees the Regulatory and Abandoned Mine Lands Programs of the KYDNR and encourages public input into the process. The OSMRE Lexington Field Office staff participates in numerous public meetings, trainings and other events to encourage interaction and facilitate public participation; and, for the last several years, has placed all topical reports and performance agreements on the Lexington Field Office website. Every year, the Lexington Field Office notifies known stakeholders and media of its finished and planned activities and allows public input into the OSMRE/KYDNR Annual Performance Agreement. OSMRE staff interacts with citizens and the media in person or by phone on a frequent basis.

Inspection and site visits are an integral part of OSMRE's oversight activities, but OSMRE also utilizes programmatic reviews involving experts in hydrology or engineering to investigate and identify potential problems. This report serves to document our evaluation of the effectiveness of the KYDNR Regulatory and Abandoned Mine Land Programs by discussing the results of OSMRE's inspection activities as well as accomplishments and successes of the program, results of oversight topic reviews, and program problems or issues, including litigation. These topics are covered in separate sections of the report. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSMRE Lexington Field Office, 2675 Regency Road, Lexington, Kentucky, 40503. Reports are also available online at the following address: <http://www.odocs.osmre.gov/>.

Major Accomplishments and Innovations

KYDNR continues to uphold the intent of SMCRA as identified in section 102 of the Act. SMCRA, and its implementing regulations, represent the nationwide minimum standards to which all coal mining operations are held. Below is a list of some accomplishments achieved by KYDNR during EY 2017.

- Office consolidation: The London regional office was closed and consolidated into the Middlesboro regional office location as a result of the declining coal market and to enable the inspection and enforcement staff to be closer to inspectable units. The Frankfort offices of the Divisions of Mine Permits, Abandoned Mine Lands, Mine Reclamation and Enforcement and the Office of the Reclamation Guaranty Fund are now consolidated in one new office location in Frankfort.
- During the EY as a result of the Commissioners' highwall reduction initiative, over 175,000 feet of idled highwall was eliminated. In an effort to reduce the idle highwall

footprint throughout the state, the Division instituted the use of technology with drones, GPS, and technology applications to monitor and track open highwall

- The KYDNR conducted training for inspection staff to increase enforcement consistency. Trainings were held throughout the state covering all enforcement aspects. Subsequently, blasting training in each regional office was also scheduled. Regional offices instituted mandatory monthly in house trainings on safety and technical/enforcement topics.
- KYDNR has begun using drones for investigations, overflights of slides, impoundments, and problem areas. The Division is working to increase the drone fleet; one per regional office. Three employees were certified by the Federal Aviation Administration as pilots to operate the drone.
- KYDNR purchased 40 new vehicles for the inspection staff. This is the first mass vehicle purchase since 2008-2009. KYDNR also purchased uniforms and equipment upgrades. Uniforms had not been purchased in over 12 years.

Success in Achieving the Purposes of SMCRA

Offsite Impacts

KYDNR issued 796 NNCs during EY 2017, 201 of which included off-site impacts. KYDNR identified 256 measureable off-site impacts as part of these 201 enforcement actions. The 201 enforcement actions with off-site impacts involved 153 permits representing approximately 10 percent of the 1,511 inspectable units. The remaining permits, approximately 90 percent, were free of off-site impacts.

Reclamation Success (Bond Release and Reforestation)

Reclamation success is tracked both by the amount of reclaimed acreage of active mines and the number of abandoned mine land projects reclaimed. Mine reclamation is considered to be a success when the land disturbed by surface and underground coal mining operations is restored to an equal to or greater land use than the pre-mining land use. Reclamation Success is a measure of the amount of acres KYDNR releases through Phase III bond release. KYDNR reported for EY 2017 that it granted bond releases for the following acreages: Phase I - 31,687 acres, Phase II – 10,503 acres, and Phase III - 8,282 acres, administratively released 11,800 acres.

OSMRE and KYDNR also track the number of acres released with a reforestation component. In EY 2017 KYDNR granted Phase III bond release to 8,282 acres for permits having specific reforestation requirements including those with reforestation as a post mining land use. Assuming a survival rate of 450 trees per acre for each of the reforestation

type categories, approximately 1,590,043 trees were established on bond released acres in EY 2017.

Abandoned Mine Land Reclamation

Abandoned mine land reclamation is monitored through the number of Authorizations to Proceed (ATP) received by OSMRE, acid mine drainage projects completed or submitted, and water supply restoration projects submitted. During EY 2017, KYDNR submitted 87 new project proposals to OSMRE requesting ATPs. Twenty-one water supply restoration projects were either under construction or proposed. These projects will account for 421,689 miles of new water line that will provide safe domestic water supplies for approximately 1,248 residential customers.

During 255 enhancement and performance review inspections of Kentucky Division of Abandoned Mine Lands (KYDAML) projects OSMRE identified 50 concerns in EY 2017.

Customer Service

Each evaluation year OSMRE Lexington Field Office conducts a customer service study to evaluate KYDNR's performance regarding this aspect of their program. This evaluation year KYDNR's citizen complaint process was evaluated. As specified in SMCRA section 102, the purpose of the act is to assure that the rights of landowners and other persons with a legal interest in the land or appurtenances thereto are fully protected from surface coal mine operational effects.

Citizen Complaints

During EY 2017, the KYDNR investigated 297 Citizen Request for Inspections related to active mine permits. This is a decrease of 63 citizen complaints from EY 2016. Three Ten-Day Notices (TDNs) were issued by OSMRE during EY 2017, as a result of citizen complaints. OSMRE has received the State response for all three TDNs and is currently reviewing the appropriateness of actions taken by the State. During EY 2017, no citizens requested informal reviews of the Lexington Field Office's determinations regarding their citizen's complaints. During EY 2017, KYDNR received approximately 479 complaints regarding abandoned mine lands, of which 37 were deemed eligible for funding.

Reforestation Outreach

During EY 2017, KYDNR conducted their Annual Arbor Day event in conjunction with Green Forests Work, a 501(c) (3) non-profit organization and Appalachian Regional Reforestation Initiative partner that works to re-establish healthy and productive forests on historically mined lands in Appalachia and the United States Forest Service. Reforestation volunteers for the Arbor Day event included local Boy Scouts of America, Explore Kentucky Initiative, Berea College and University of Kentucky students, AmeriCorps

National Service members, OSMRE ARRI coordinators, and KYDNR and USFS staff. Approximately 1677 high value hardwood tree seedlings were planted by 51 reforestation volunteers on 3.75 USFA acres of pre SMCRA surface mine lands.

National Priority, Regional, and General Oversight Topic Reviews

National Priority Topic Reviews

No national priority oversight topic reviews were conducted during EY 2017.

Regional Oversight Topic Reviews

During EY 2017, OSMRE continued writing The *Appalachian Regional Impoundment Study* and conducted the *Underground Mine Pool Study*. OSMRE, after an initial kickoff meeting with the KYDNR, proceeded to complete all site reviews and prepare a draft report that is under review by the review team for the Appalachian Region Impoundment Study. The Underground Mine Pool oversight study report, once finalized, will contain discussions of the reviewed permits, issues identified, and proposed resolution measures for all issues.

General Oversight Topic Reviews

Oversight Studies: OSMRE conducts topical oversight studies as part of the Annual Performance Agreement to ensure KYDNR is meeting the minimum standards specified in SMCRA. These topical oversight studies include: an evaluation of OSMRE Inspections, The Bond Forfeiture Report, The Fill Inventory, The Long Term Treatment Inventory, and the Phase I Inspection Frequency Study. Results of these studies will be discussed herein.

Inspection and Enforcement: OSMRE Directive REG-8 establishes the minimum number of oversight inspections required for each State program. REG-8 mandated that OSMRE conduct 309 oversight inspections in Kentucky. In EY 2017, OSMRE conducted a total of 368 oversight-related inspections of which 361 counted directly toward the required REG-8 inspections. During EY 2017, 211 comprehensive random inspections, 23 comprehensive independent random sample inspections, and 33 partial inspections were conducted. OSMRE observed 312 violations during oversight inspections.

Comprehensive random inspections are also used to track industry compliance. Industry compliance is defined as a measurement of the number of comprehensive random inspections with no observed violations and is expressed as a percentage of the total number of comprehensive random inspections. Compliance was the lowest it has been in the last ten years, at 60%. During EY 2017, KYDNR completed a total of 6,497 complete and 10,185 partial inspections. KYDNR met

frequency on 99.74% of the permits requiring inspections. During the 16,682 inspections conducted by KYDNR, 796 Notices of Non-Compliance (NNC) were written and 1,634 violations were issued.

Bond Forfeiture Report: The Draft Bond Forfeiture Report for EY 2017 found that 56% of permits did not have sufficient bond to reclaim the permit to permanent program standards. KYDAML's cost estimates calculated the cost of reclamation of all forfeited increments to permanent program standards to be \$1,865,953.25. Total bond posted for the 38 increments equals \$984,879.00 which accounts for 52.8% of the total cost of reclamation

Fill Inventory: During EY 2017, OSMRE and KYDNR collected information on the size and location of permitted excess spoil disposal fills for all new permits, amendments, and major revisions. OSMRE and KYDNR found 109 permitting actions (14 new permits, 44 amendments, and 51 major revisions) in CY 2016 involving surface, underground, or other mining operations. LFO and KYDNR found 16 permitting actions that contained information on 49 fills. The other 93 permitting actions did not involve fills.

Long Term Treatment Inventory: The Kentucky long term treatment inventory is a list of permits, which would otherwise be eligible for bond release, that require continued treatment in order to meet Kentucky Pollutant Discharge Elimination System requirements. OSMRE conducts oversight inspections on all sites on this list. During EY 2017, OSMRE was notified that 11 sites, from 10 permits were eligible to transition from the active to historical inventory. This eligibility is based on a year's worth of monitoring data that meets the Kentucky Pollutant Discharge Elimination System (KPDES) requirements without treatment. In addition, OSMRE performed five random inspections of permits on the active inventory in EY 2017.

Phase I Inspection Frequency Study: This special study was developed to determine if KYDNR was reducing its inspection frequency at the appropriate time as per their regulations. Twenty-one permits were evaluated for this special study, OSMRE has a draft under review which will be sent to the state for comment in EY 2018.

The Approved State Program

Regulatory Program Problems and Issues

The Kentucky State program was conditionally approved in 1982. Part 732 of Title 30 of the Code of Federal Regulations (CFR) sets forth criteria and decisions to approve or

disapprove State programs and program amendments. KYDNR currently has three program amendments that are being reviewed by OSMRE.

733 Action

Part 733 of Title 30 CFR establishes requirements for the maintenance of State programs and procedures for substituting Federal enforcement of State programs and withdrawal of approval of State programs. In accordance with 30 CFR 733.12(b), OSMRE notified KYDNR on May 1, 2012, that bonding under the Kentucky program is inadequate to ensure the full reclamation of forfeited sites. Consequently, Kentucky immediately implemented emergency program changes to raise the site specific base bond amounts and the creation of a non-site specific supplemental fund, referred to as the Kentucky Guarantee Reclamation Fund (KGRF). OSMRE solicited comments on the proposed changes and summarized the program changes in the Federal Register (FR) on March 26, 2015 [80 FR 15953]. Currently, Kentucky's proposed program changes are under OSMRE's review.

OSMRE Assistance – Regulatory and AML Programs

Grants

OSMRE awards grants to the states annually, the Title V Administration and Enforcement (A&E) Regulatory Program grants are on a one year cycle, where the Title IV grants have a three year cycle. OSMRE awarded over \$46.5 million to KYDNR to fund both programs. The 2015 A&E grant was awarded for \$11,631,247 and does not include indirect costs. The regulatory program is 50 percent Federally-funded, except for the \$1,419,423 that Kentucky received to administer the Federal Lands Program which is 100 percent funded. The grant awarded by OSMRE for the 2016 A&E grant was \$11,632,000 of which \$1,441,801 is to administer the Federal Lands Program.

The AML 2016 grant requested \$17,088,577 to fund 100 percent of the total program costs. In FY 2017, OSMRE awarded \$12,649,694 to KYDAML for their program.

Interagency Coordination

KYDNR and OSMRE actively participate in meetings in which the sole purpose is to coordinate with other state and federal agencies that have a vested interest in SMCRA activities. These other agencies are primarily responsible for administering the Clean Water Act, the Endangered Species Act, and the National Historic Preservation Act. KYDNR and OSMRE also coordinate with Federal land managing agencies whenever permitting involves coal mining on federally owned lands.

Table of Contents

I.	Introduction.....	13
II.	Overview of the Coal Mining Industry in Kentucky	15
III.	Overview of the Public Participation Opportunities in the Oversight Process.....	17
A.	Notice of Intent to Sue	18
IV.	Major Accomplishments and Innovations	19
V.	Success in Achieving the Purposes of SMCRA	19
A.	Off-site Impacts.....	20
B.	Reclamation Success	21
1.	Phase III Bond Release.....	22
2.	Contemporaneous Reclamation.....	23
3.	Reforestation.....	23
4.	Experimental Practices	24
C.	Customer Service	25
1.	Citizen Complaints	25
2.	Reforestation Outreach.....	27
VI.	National Priority and General Oversight Topic Reviews	28
A.	National Priority Reviews	28
B.	Regional Oversight Topic Reviews.....	28
1.	Impoundment Study- Appalachian Regional Impoundment Study.....	28
2.	Underground Mine Pool Study.....	29
C.	General Oversight Topic Reviews	30
1.	Inspection and Enforcement	30
2.	Blasting – Adverse Effects	38
3.	Bond Forfeiture Report.....	38
4.	Fill Inventory	39
5.	Long-Term Treatment	40
6.	Phase I Inspection Frequency Study.....	41
VII.	The Approved State Program.....	44
VIII.	Regulatory Program Problems and Issues.....	45
A.	733 Action	45

IX.	OSMRE Assistance- Regulatory Program.....	46
A.	Grants	46
B.	Training	46
C.	Interagency Coordination.....	47
1.	Clean Water Act	47
2.	Endangered Species Act	48
3.	National Historic Preservation Act.....	48
4.	Federal Lands	49
X.	Abandoned Mine Lands Reclamation.....	50
A.	General: Introduction and Program Administration.....	50
B.	Noteworthy Accomplishments	50
C.	Public Participation and Outreach.....	51
D.	OSMRE Assistance- Abandoned Mine Lands	52
E.	Results of Evaluation Year 2017 Reviews.....	53
1.	Overall Reclamation Success	53
2.	Acid Mine Drainage	54
3.	Water Supply Restoration.....	54
4.	AML Grant Fiscal and Administrative Reviews	54
5.	e-AMLIS.....	55
XI.	Appendix 1 Summary of Core Data to Characterize the Program.....	56
XII.	Appendix 2 State Comments on the Report.....	95
XIII.	Appendix 3 State Non-Compliance Data (Listed by Descending Number of Non-Compliances)	98
	Appendix 4 State Non-Compliance Data (Listed by Permittee Alphabetically)	103

I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) established the Office of Surface Mining Reclamation and Enforcement (OSMRE) within the Department of the Interior. SMCRA provides authority to OSMRE to oversee the implementation of and provide Federal funding for the state and tribal regulatory and abandoned mine land (AML) programs that have been approved by the Secretary of the Interior as meeting the minimum standards specified by SMCRA. This report contains summary information regarding the Kentucky programs and the effectiveness of the Kentucky programs in meeting the applicable purpose of SMCRA as specified in section 102. This report covers the period July 1, 2016, to June 30, 2017. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSMRE Lexington Field Office, 2675 Regency Road, Lexington, Kentucky, 40503. Reports are also available online at the following address: <http://www.odocs.osmre.gov/>.

List of Acronyms

The Following Acronyms are used in this report:

Acronyms	Meaning
A&E	Administration and Enforcement
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLER	Abandoned Mine Land Economic Revitalization
ATP	Authorization to Proceed
CFR	Code of Federal Regulations
CHIA	Cumulative Hydrologic Impact Assessment
CIA	Cumulative Impact Areas
CO	Cessation Order
CY	Calendar Year
DCM	Division of Fee Compliance Management
e-AMLIS	Abandoned Mine Land Inventory System
EY	Evaluation Year

Acronyms	Meaning
A&E	Administration and Enforcement
FR	Federal Register
FRA	Forestry Reclamation Approach
FY	Fiscal Year
GIS	Geographic Information System
KAR	Kentucky Administrative Regulations
KRGF	Kentucky Guarantee Reclamation Fund
KRS	Kentucky Revised Statutes
KYDAML	Division of Abandoned Mine Lands
KYDNR	Kentucky Department for Natural Resources
LTT	Long-Term Treatment
NEPA	National Environmental Policy Act
NNC	Notice of Non-Compliance
NOI	Notice of Intent to Sue
NPDES	National Pollutant Discharge Elimination System
NTTP	National Technical Training Program
OMDAI	Long Term Treatment Active Inventory Inspection
OSMRE	Office of Surface Mining Reclamation and Enforcement
PEP	Protection and Enhancement Plan
PMLU	Post-Mining Land Use
RAM	Reclamation Advisory Memorandum
SMCRA	Surface Mining Control and Reclamation Act of 1977
TDN	Ten-Day Notice

Acronyms	Meaning
A&E	Administration and Enforcement
TIPS	Technical Innovation and Professional Services
USFWS	United States Fish and Wildlife Service
WET	Whole Effluent Toxicity

II. Overview of the Coal Mining Industry in Kentucky

Kentucky is made up of five physiographic sub-regions, including the Western and Eastern Kentucky coal fields. The Western Kentucky coal field is part of the Interior Low Plateau physiographic province, comprised of gently rolling hills consisting mainly of farmland and unmanaged forestland. The Eastern Kentucky coal field is part of the Appalachian Plateau physiographic province, at the edge of the Appalachian Mountains. The terrain is comprised of steep sloped hills of mainly unmanaged forestland. The forest type in this area is mixed mesophytic, meaning it is suited to land that is neither arid nor particularly wet, and is considered to be ecologically diverse.

Kentucky's coal reserve base is the fifth largest in the nation and consists entirely of bituminous coal. Coal was first discovered in Kentucky in 1750 by Dr. Thomas Walker. The first commercial mine, known as the "McLean drift bank" was opened in 1820 in Muhlenberg County in the Western Kentucky coal field. Kentucky was the nation's leading coal producer for over a decade before 1988 when production in Wyoming and West Virginia exceeded that in Kentucky. Kentucky, now the fifth-largest coal-producing state, produced more than 44 million short tons of bituminous coal in calendar year (CY) 2016. We should note, information on coal sales is gathered and reported on the calendar year rather than the evaluation year. Coal production in Kentucky has continued the downward trend that began in the early 1990's, decreasing 27% in CY 2016 from the previous year. Surface mines accounted for 10 million tons (29%) and underground mines accounted for 35 million tons (71%) of the coal mined in CY 2015. The decline in coal production through time is illustrated in Figure 1.

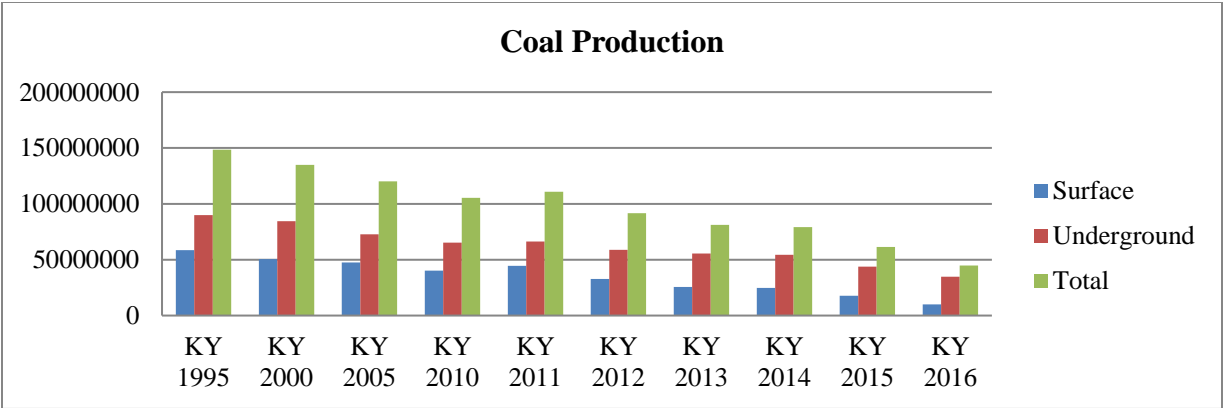


Figure 1. Graph showing coal production from selected years starting in 1995.

With the decline in the industry over the past few years, OSMRE has begun to track the number of bankruptcies that occur during each evaluation year. During EY 2017, two companies filed for Chapter 11 bankruptcies on mining permits in Kentucky. The two companies included; Blackforest Coal LLC, and Meadowfork Mining LLC.

KYDNR currently inspects 1,511 coal mining permits: 677 surface mines, 524 underground mines, and 310 roads, preparation plants, refuse disposal areas, and other ancillary facilities. Figure 2 shows the variation in numbers of different types of permits since 1985.

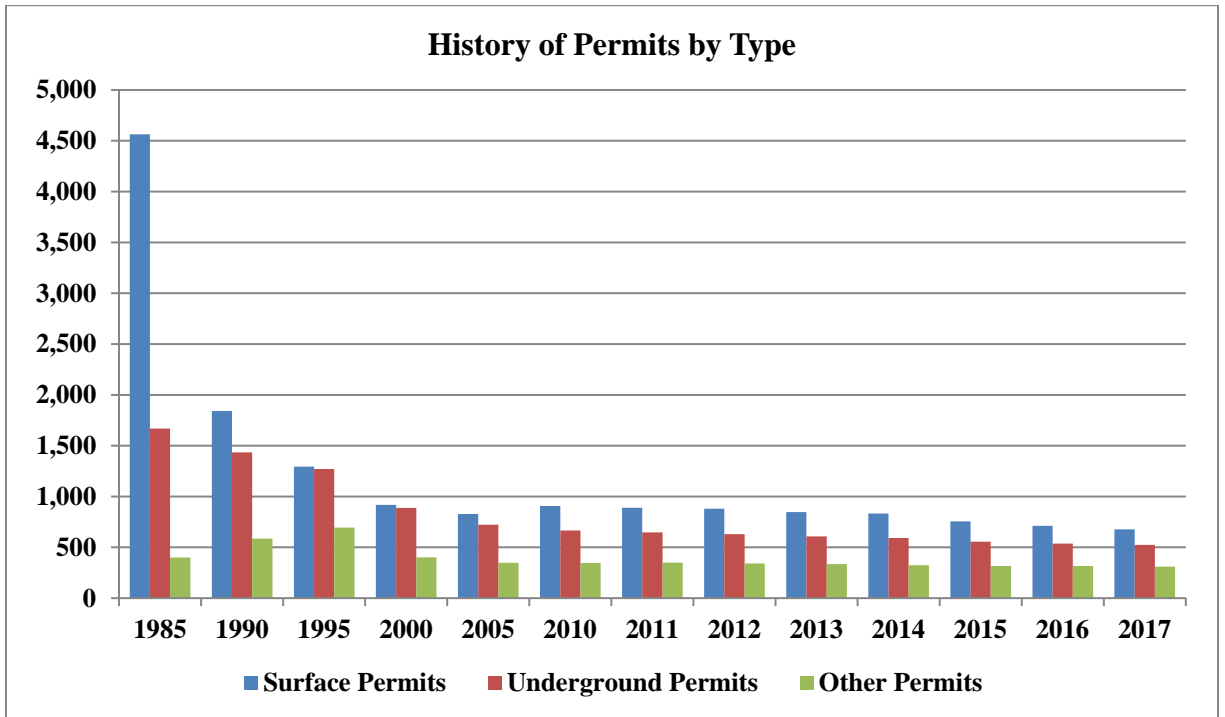


Figure 2. Inspectable units graph showing the number and type of permits for selected years, from 1985 to the present.

The graph shows a sharp decline between EY 1985 and EY 1990, and a less pronounced, but still significant rate of decline from EY 1990 to EY 2005, when the trend stabilized. Between EY 2005

and 2013, little variation was observed in the total number of permits, which averaged 1,804. Since EY 2013, the total number of permits has steadily declined, with 1,511 total permits in EY 2017, 16 percent fewer than the average between EY 2005 and EY 2013. The information for inspectable units is shown in Table 10 of Appendix 1. The 1,511 inspectable units include both permanent program permits and interim permits.

The number of permits being issued has declined in much the same manner as the number of active permits. The graph below shows the decrease in the number of newly issued permits from the last 5 years. In EY 2012, KYDNR issued 77 new permits compared to 17 issued during EY 2017, a 78 percent decrease in 5 years.

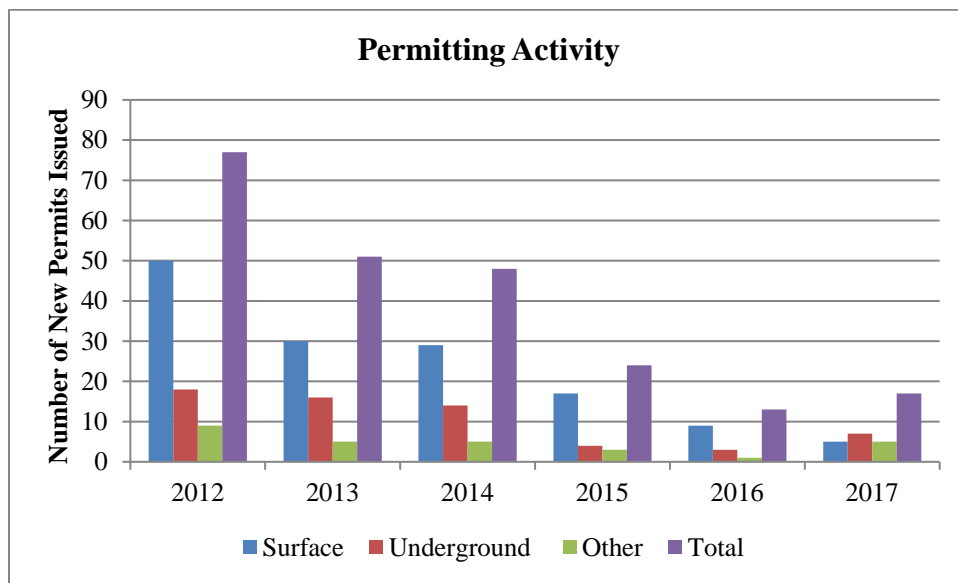


Figure 3. Graph showing the number of new permits issued for the last 6 EYs by permit type.

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

Prior to the beginning of each evaluation year, OSMRE solicits suggestions from citizen and industry groups on oversight topics for the upcoming year. The draft EY 2017 Performance Agreement was sent out to potential stakeholders for input in June 2016. There were no comments received for this Performance Agreement.

This agreement describes proposed oversight activity for the evaluation year and identifies specific issues to be addressed by oversight inspections as well as joint special studies to be conducted on

selected components of the State's Program. The EY 2017 Performance Agreement was finalized on July 7, 2016.

The enactment of SMCRA created many avenues for citizen involvement. Citizens have a statutorily defined opportunity for input in practically every phase of the surface mining program, from permit issuance to bond release. Since SMCRA's enactment in 1977, coalfield citizens have exercised those rights to influence policies and programs that govern surface coal mining and reclamation in America.

Kentucky has several citizen organizations that take part in public participation opportunities regarding coal mining issues, including: Kentuckians for the Commonwealth, Kentucky Resources Council, Kentucky River Keeper, Kentucky Waterways Alliance, Ohio Valley Environmental Coalition, Sierra Club, Alliance for Appalachia, Appalachian Citizen's Law Center, Appalachian Mountain Advocates, Appalachian Voices and Heartwood.

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

A. Notice of Intent to Sue

Section 520 of SMCRA allows citizens to file civil actions against the United States government, a governmental instrumentality, an agency, or any other person who is in violation of any rule, regulation, order, or permit issued pursuant to the Act. A notice of intent to sue (NOI) is sent to notify the coal industry, and/or, state or federal regulatory authority that a citizen intends to file a civil action.

There were no NOIs filed against coal companies, KYDNR, or OSMRE in Kentucky during EY 2017.

Additional actions were taken during EY 2017 for NOI filed by the Johnson Family Property, LLC (Johnson Family) in EY 2014. The issue involves the right of entry and consent to surface mine for a surface tract in Pike County, Kentucky. During this EY, the Johnson Family filed a motion with the US District court asking for a review of the termination of a cessation order after not receiving a final decision on the same issue from the Interior Board of Land Appeals. The District court denied motions by OSMRE and Premier Elkhorn for summary judgment and for lack of subject matter jurisdiction, respectively. Early in EY 2018, Premier Elkhorn's motion for summary judgment of the Office of Hearings and Appeals decision which affirmed OSMRE's decision to terminate the cessation order was granted by the District court and will be heard in the current EY.

IV. Major Accomplishments and Innovations

KYDNR continues to uphold the intent of SMCRA as identified in section 102 of the Act. SMCRA, and its implementing regulations, represent the nationwide minimum standards to which all coal mining operations are held. Below is a list of some accomplishments achieved by KYDNR during EY 2017.

- Office consolidation: The London regional office was closed and consolidated into the Middlesboro regional office location as a result of the declining coal market and to enable the inspection and enforcement staff to be closer to inspectable units. The Frankfort offices of the Divisions of Mine Permits, Abandoned Mine Lands, Mine Reclamation and Enforcement and the Office of the Reclamation Guaranty Fund are now consolidated in one new office location in Frankfort.
- During the EY as a result of the Commissioners' highwall reduction initiative, over 175,000 feet of idled highwall was eliminated. In an effort to reduce the idle highwall footprint throughout the state, the Division instituted the use of technology with drones, GPS, and technology applications to monitor and track open highwall.
- The Division of Mine Permits conducted a robust review of contemporaneous reclamation variance requests and as a result found 157,000 feet of potential highwall was found not to be justified.
- The KYDNR conducted training for inspection staff to increase enforcement consistency. Trainings were held throughout the state covering all enforcement aspects. Subsequently, blasting training in each regional office was also scheduled. Regional offices instituted mandatory monthly in house trainings on safety and technical/enforcement topics.
- KYDNR has begun using drones for investigations, overflights of slides, impoundments, and problem areas. The Division is working to increase the drone fleet; one per regional office. Certified 3 employees by the Federal Aviation Administration as pilots to operate the drone.
- KYDNR purchased 40 new vehicles for the inspection staff. This is the first mass vehicle purchase since 2008-2009. KYDNR also purchased uniforms and equipment upgrades. Uniforms had not been purchased in over 12 years.

V. Success in Achieving the Purposes of SMCRA

A. Off-site Impacts

How effectively KYDNR's program protects the public and the environment from off-site impacts is evaluated by identifying and analyzing known off-site damage from surface and underground coal mining permits in Kentucky. During each Evaluation Year, KYDNR supplies OSMRE with all Notices of Non-Compliance (NNC) and Cessation Orders (CO), along with associated mine inspection reports that document off-site impacts. OSMRE analyzes this information, documents the magnitude, and identifies the root cause of each off-site impact.

KYDNR issued 796 NNCs during EY 2017, 201 of which included off-site impacts. KYDNR identified 256 measureable off-site impacts as part of these 201 enforcement actions. Off-site impacts were identified based on KYDNR's documentation and the OSMRE reviewer's interpretation of the enforcement language used in the inspection reports associated with the enforcement action. The OSMRE reviewer contacted the issuing KYDNR inspector when more information was needed to properly evaluate an offsite impact.

The 201 enforcement actions with off-site impacts involved 153 permits representing approximately 10 percent of the 1,511 inspectable units. The remaining permits, approximately 90 percent, were free of off-site impacts. The NNCs with off-site impacts were analyzed for type of incident, resource affected, degree of impact, and root cause.

As displayed in Figure 4 below, the percentage of permits free of off-site impacts decreased from a high of 93% in EY 2006 to a low of 79% in EY 2010. A rising trend of permits free of offsite impacts has continued since the low of EY 2010.

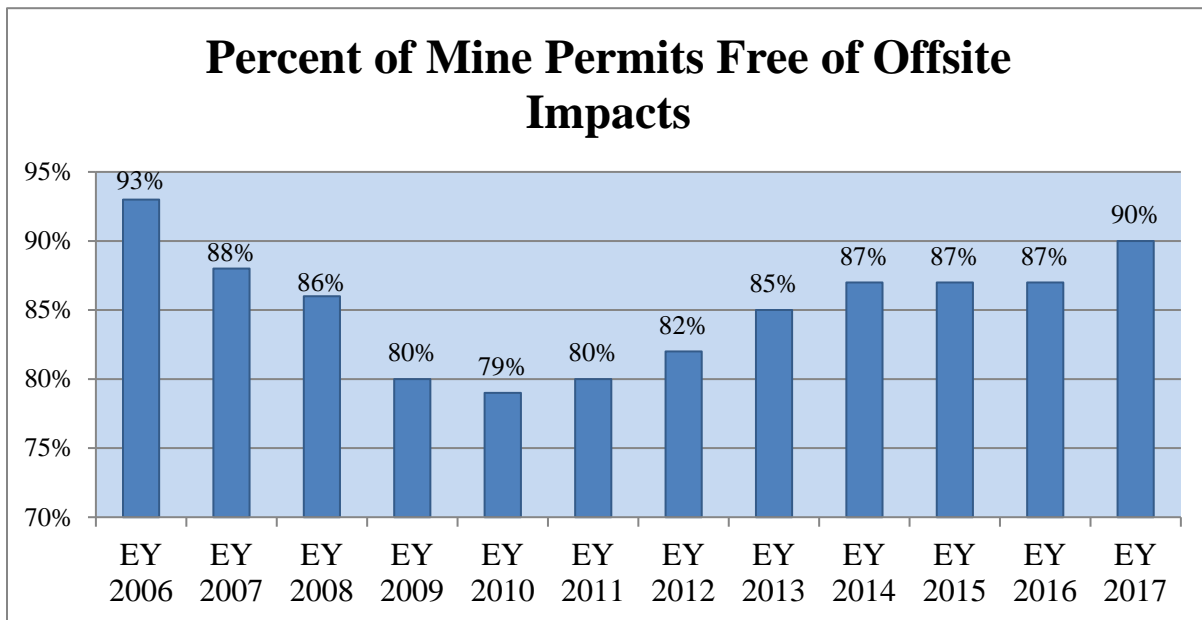


Figure 4. Graph showing the total percentages of permits free of offsite impacts from EY 2006 to EY 2017.

Of the 256 measurable off-site impacts, 48.4% were for hydrology; 28.1% were for land stability; 18.4 were for encroachment; 4.7% were for other (including public roadway affect) impacts; and only 0.4% was for blasting.

Based on the data collected, the total off-site impacts from coal mining operations for EY 2017 included 317.7 acres of land, 23.88 miles of streams, 10 structures, and 4 ground water wells. The findings for off-site impacts indicate that approximately 49.6% of the measured incidents involved water, 46.5% involved land, 3.9% involved structures, and no people were impacted. The majority of impacts, approximately 91.8%, were minor, 3.5% were considered moderate, and 4.7% were considered major incidents. The root causes of the off-site impacts included 47% attributed to operator negligence, 37% to improper maintenance, 6% to improper permitting activities, 6% were linked to unanticipated natural events (such as extreme rain fall events), and 4% to improper construction techniques.

B. Reclamation Success

Mine reclamation is considered to be a success when the land disturbed by surface and underground coal mining operations are restored to a land use equal to or higher than the pre-mining land use. Several tables of Data for States and Tribes (DST Tables) for the evaluation year are presented in Appendix 1 of this report. The DST Tables provide a measure of the success in reclamation for each Evaluation Year. Reclamation success is considered to be directly related to the number of acres KYDNR processes through Phase III bond release. The standards of Phase III bond release ensure that land disturbed by mining is restored to an equal to or higher land use. Reclamation performance bonds are collected to provide the financial assurance that all permanent performance standards will be met, including the restoration of, or improvement in post mining land use if the operator is unable to perform this reclamation. In accordance with SMCRA, the Kentucky program uses a phased bond release system to allow permittees to reduce their bond liability as certain phases of reclamation are successfully achieved. Phase I requires that the disturbed area be backfilled, graded, topsoil spread, seeded, mulched, and provided with sediment control. Phase II requires that vegetation meeting the standards for re-vegetation success has been established in reclaimed areas, in accordance with the approved reclamation plan. The reclaimed area must not contribute suspended solids to stream flow or runoff outside the permit area. Phase III requires that: the reclaimed area successfully meets all surface coal mining and reclamation standards in accordance with the approved reclamation plan; the reclaimed land is capable of supporting the approved Post Mining Land Use (PMLU) requirements and; the applicable liability period has expired. During mining, operators are required to reclaim in a contemporaneous manner. This helps ensure that the required standards will be met as the permit becomes eligible for phased bond releases. Contemporaneous reclamation was identified by OSMRE as an issue, and evaluated in EY 2003, and then again in EY 2011. OSMRE concluded in the EY 2011 study

that KYDNR had adequately addressed the EY 2003 oversight findings. OSMRE continues to review compliance data from both KYDNR and OSMRE inspections to ensure that operators are in compliance with contemporaneous reclamation requirements.

1. Phase III Bond Release

In Appendix 1, DST Table 6, KYDNR reported for EY 2017 that it granted bond releases for the following acreages: Phase I – 31,687 acres, Phase II – 10,503 acres, and Phase III - 8,282 acres. In EY 2017, KYDNR administratively released 11,800 acres. These administrative releases include areas that were permitted, but not mined. Sixty-seven percent (5,539 acres) and twenty-four percent (2,012 acres) released during the evaluation year were fish and wildlife habitat and pasture/hayland, respectively.

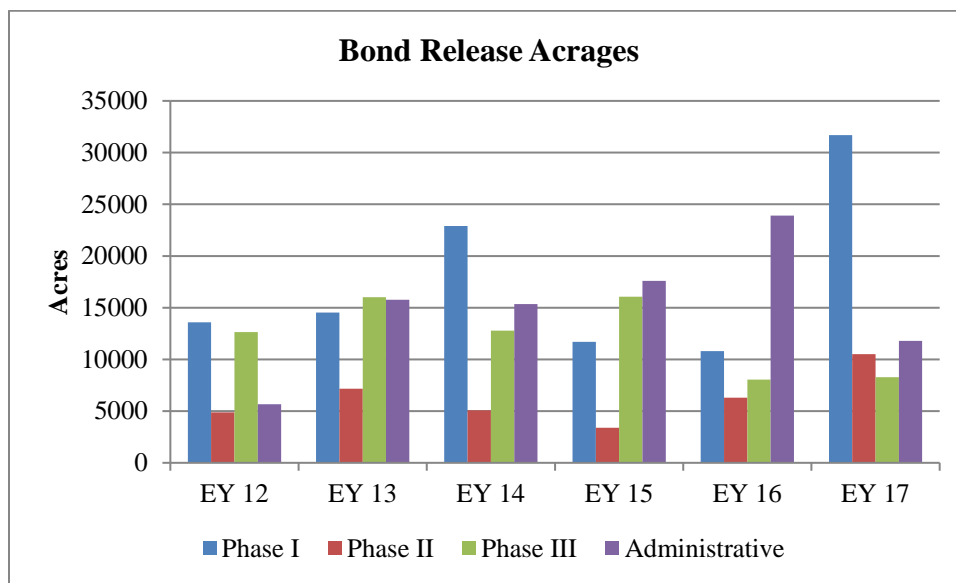


Figure 5. Graph showing the acres granted bond release over the last five Evaluation Years for Phases I, II, III, and administrative release.

As part of OSMRE’s oversight role, random sample inspections include permits that have received Phase I bond release. Thirty such sites were randomly inspected during EY 2017. Nine of the thirty inspected permits were found to be in violation, with thirteen performance standards cited.

The work plan for the regional underground mine pool evaluation study required OSMRE to review all underground mine permits applying for Phase III bond release. OSMRE reviewed sixty-one permits through joint Phase III bond release inspections with KYDNR. Fourteen of the sixty-five permits were evaluated for the regional underground mine pool study. The remainder of the permits included surface mines, preparation plants, and other ancillary permits. Four permits (one underground and three surface) were found to be in violation and 6 performance standards were written by KYDNR.

2. Contemporaneous Reclamation

KYDNR monitors contemporaneous reclamation compliance during field inspections. The State uses both contemporaneous reclamation and backfilling and grading performance standards to cite contemporaneous reclamation non-compliances.

Evaluation of State Compliance Data: KYDNR wrote 796 notices of non-compliance during EY 2017, citing 1,335 violations. Of these violations, 58 were related to contemporaneous reclamation and 63 to backfilling and grading. This represents only about 9 percent of the total violations written by KYDNR during EY 2017. The State also reported that they received 297 citizen complaints during EY 2017. No complaints were investigated for contemporaneous reclamation.

Evaluation of OSMRE Compliance Data: OSMRE conducted 234 random comprehensive and partial oversight inspections during EY 2017 and documented 261 violations. Seventeen of these were contemporaneous reclamation violations, all of which were previously cited by KYDNR. Twenty other backfilling and grading violations were cited during EY 2017. Together approximately 14 percent of all violations observed by OSMRE on comprehensive inspections for the evaluation year were related to contemporaneous reclamation or backfilling and grading.

3. Reforestation

Reforestation is another measure that contributes to reclamation success. KYDNR annually reports to OSMRE the number of acres that were permitted with a reforestation component to the PMLU. KYDNR also reports the number of acres with a reforestation component that received a Phase III bond release. The PMLU categories that commonly utilize reforestation and the Forestry Reclamation Approach (FRA) are Forest Land, and Fish and Wildlife. Some permits, having a combination of PMLUs, may intermittently implement the use of FRA to achieve permit specific conditions such as Indiana Bat Protection and Enhancement Plans (PEP).

Newly Permitted Acreages: The following table summarizes the permitting activity during EY 2017 as it relates to reforestation.

Reforestation Type	Acres Permitted EY 2017	Approximate No. of Trees (Assuming re-stocking rate of 680 stems/acre)	Min.% Acreage Requirement for Reforestation
Forestland	3,129.19	2,127,720	100%
Fish and Wildlife	3,008.61	613,756	30%

Reforestation Type	Acres Permitted EY 2017	Approximate No. of Trees (Assuming re-stocking rate of 680 stems/acre)	Min.% Acreage Requirement for Reforestation
Enhanced Fish and Wildlife	1,804.8	1,227,264	70%
Total Acreage Permitted EY 2017	7,942.6		
Total Estimated Trees		4,173,323	

Table 1. Table of the acreages and number of trees to be planted on the different post mining land uses involving reforestation.

Phase III Bond Released: The following table summarizes the estimated number of trees released during the EY

Reforestation Type	Acres Released EY 2017	Approximate No. of Trees (Assuming survival rate of 450 trees/acre)	Min.% Acreage Requirement for Reforestation
Fish and Wildlife	2,215.9	299,146	30%
Forestland	542	243,900	100%
Enhanced Fish and Wildlife	3,323.8	1,046,997	70%
Total Acreage Released EY 2017	6,081.7		
Total Estimated Trees		1,590,043	

Table 2. Table of the number of acres and trees surviving on sites granted Phase III bond release during EY 2017

4. Experimental Practices

OSMRE encourages the development of experimental practices as a means of demonstrating the effectiveness and economic feasibility of new mining and reclamation practices or to provide innovative post-mining land use alternatives. The primary responsibility for processing experimental practice applications is to assure that the findings meet the standards at 30 CFR

785.13(d) OSM Directive REG-7 dated April 24, 1992. Approvals of experimental practices are Federal actions requiring compliance with the National Environmental Policy Act of 1969 (NEPA), as amended (P.L. 91-190). Environmental documents submitted for NEPA compliance must meet the requirements of REG-7 and the OSMRE NEPA Handbook (REG-1).

OSMRE continued to monitor the experimental practice for retention of highwalls for industrial/commercial development at the KC Coals site. OSMRE also evaluates the experimental practice applications as they are submitted by applicants. During the EY, OSMRE continued evaluating the experimental practice proposed by Option Land Development that proposes the removal of the natural barrier and replacing it with weep berms to improve water quality leaving the mine site.

C. Customer Service

1. Citizen Complaints

OSMRE gathers data annually on citizen complaints. During EY 2017, the KYDNR investigated 297 Citizen Request for Inspections related to active mine permits. This is a decrease of 63 citizen complaints from EY 2016. Three Ten-Day Notices (TDNs) were issued by OSMRE during EY 2016, as a result of citizen complaints. OSMRE has received the State response for all three TDNs and is currently reviewing the appropriateness of actions taken by the State. During EY 2017, no citizens requested informal reviews of the Lexington Field Office’s determinations regarding their citizen’s complaints.

In addition to new Citizen Request for Inspections, KYDNR had 55 complaints that remained outstanding and/or unresolved from EY 2016; therefore, the total number of complaints to be investigated and resolved for EY 2017 was 352. Sixty-nine complaints remained unresolved at the end of in EY 2017.

Of the 297 Citizen Request for Inspections reported, 319 violations of performance standards were alleged by the complainants. KYDNR issued 59 NNCs as a result of the Citizen Requests for Inspection investigations citing 83 performance standards. The table below gives a breakdown of each performance standard issued during the EY

Performance Standard	Total Amount	Performance Standard	Total Amount
Off Permit Disturbance (OD)	13	Roads (AC)	3
Water Quality (WQ)	13	Air Resources Protection (AP)	2
General Hydrologic (HR)	11	Other Permit Conditions (OT)	2

Performance Standard	Total Amount	Performance Standard	Total Amount
Sedimentation Ponds (SC)	11	Contemporaneous Reclamation (CR)	1
Effluent Limitations (EL)	8	Backfilling and Grading (BG)	1
Disposal of Excess Spoil (DS)	5	Other Transport Facilities (OF)	1
Diversions (DV)	5	Subsidence (SB)	1
Method of Operation (OM)	5	Water Monitoring (WM)	1

Table 3: Table showing the performance standards issued as a result of a citizen request for inspection.

The numbers of citizen complaints continued to decrease in EY2017, decreasing by 63 from the previous EY. The graph below shows this reduction throughout the years. Due to the decrease in mining activity in the state, is likely the cause of the decrease in citizen complaints.

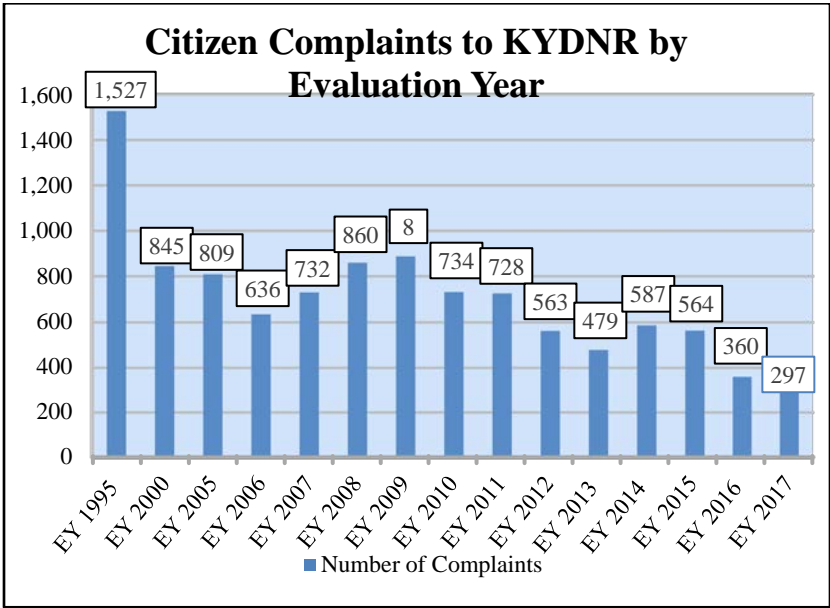


Figure 6. Graph showing the number of citizen complaints received each year by KYDNR since evaluation year 1995.

2. Reforestation Outreach

Through KYDNR Reforestation Outreach initiatives decreased from EY 2016 due to budgeting and loss of staff. The KYDNR reforestation outreach provides opportunities and instruction to civic groups, elementary, high school, and college level students on surface coal mining reforestation technology.



Photo 1. OSMRE staff and Americorp Volunteers plant seedlings on the Daniel Boone National Forest. 2017 KYDNR Annual Arbor Day Event

During EY 2017, KYDNR conducted their Annual Arbor Day event in conjunction with Green Forests Work, a 501(c) (3) non-profit organization and Appalachian Regional Reforestation Initiative partner that works to re-establish healthy and productive forests on historically mined lands in Appalachia and the United States Forest Service. Annual Arbor Day celebrations are important for providing educational opportunities to Kentuckians on the environmental benefits of re-establishing forests throughout the Appalachians. The KYDNR's Annual Arbor Day event for EY 2017 was held on the Daniel Boone National Forest in Pulaski County, Kentucky and co-funded by a United States Forest Service grant and Green Forest Works.

Reforestation volunteers for the Arbor Day event included local Boy Scouts of America, Explore Kentucky Initiative, Berea College and University of Kentucky students, AmeriCorps National Service members, OSMRE ARRI coordinators, and KYDNR and USFS staff. Approximately 1677 high value hardwood tree seedlings were planted by 51 reforestation volunteers on 3.75 USFA acres of pre SMCRA surface mine lands. The project also provided an opportunity for the volunteers to learn about the American Chestnut Foundation's experimental Back-Crossed American chestnut project and to inter-plant seedlings on the site. back-crossed American chestnut seedlings generously provided by The American Chestnut Foundation. The student volunteers were successful in helping re-establish a high-value hardwood forest on actively mined land, planting seedlings for a combined total of 2,176 volunteer hours.

VI. National Priority and General Oversight Topic Reviews

OSMRE conducted the following National Priority and General Oversight Topic Reviews during EY 2017. The following reviews were joint studies, with team members representing both OSMRE and KYDNR. Subjects of these types of reviews are mutually agreed to by OSMRE and KYDNR each year when the Annual Performance Agreement is signed. Below is a summary of each review conducted during EY 2017. If the summary references a complete report, these are available for review and copying at the OSMRE Lexington Field Office 2675 Regency Road, Lexington, Kentucky, 40503 and are also available online at the following address: <http://www.odocs.osmre.gov/>.

A. National Priority Reviews

OSMRE did not conduct any national reviews in EY 2017.

B. Regional Oversight Topic Reviews

1. Impoundment Study- Appalachian Regional Impoundment Study

This regional study evaluated the permit review processes of KYDNR concerning the potential for impounded coal mine waste in impoundments to “breakthrough” into adjacent and subjacent underground mines. Determination of breakthrough potential was evaluated by OSMRE in accordance with standard engineering and dam safety practices, approved state and federal regulations and the following parameters:

- The presence or absence of minable coal seams adjacent and subjacent to coal mine waste slurry impoundments.
- The extent to which the operator investigated underground mine maps and other information to evaluate the nature and extent of adjacent and subjacent underground mining within 500 feet of or below an impoundment.
- For cases where underground mines were determined to exist in the vicinity of an impoundment; steps taken to assess the potential for fine-waste slurry to flow into the underground mines following a breakthrough, and to prevent a breakthrough from occurring.

During EY 2016, sites were selected and a kickoff meeting was conducted. Each permit evaluation included a review of pertinent documents, information, and data in the coal waste impoundment permit-application and inspection-and-enforcement files. All site visits have been completed and a draft report that is currently in review at OSMRE's Appalachian Regional Office is expected to be completed during EY 2018.

2. Underground Mine Pool Study

The underground mine pool study is a regional oversight effort that was designed to assess whether or not regulatory authorities are appropriately considering post closure hydrology and the pollution potential (current and future) of water that accumulates in underground mines. Long term control, treatment, and maintenance of underground mine pools are necessary to prevent problematic pollutional discharges as required by 30 CFR § 800.40 (b) (1) and 405 KAR 10:040 Section 1 (4). This study also includes consideration of the financial assurances that must be in place if the operator ceases to provide the necessary control and treatment.

OSMRE provided the EY 2016 underground mine pool report to KYDNR for review on November 15, 2016. The report contained a discussion of the permits reviewed during EY 2016, as well as recommendations to improve KYDNR's evaluation of underground mines prior to bond release. KYDNR provided OSMRE with comments to this document on August 3, 2017. OSMRE is currently reviewing these comments in preparation to finalize the report. A similar report will be drafted outlining the findings of the EY 2017 inspections.

As a part of the regional oversight effort, OSMRE drafted an Appalachian Region (AR) regional report entitled "*Appalachian Region Oversight Study on the Information and Inspection Techniques used by Regulatory Authorities to Evaluate Underground Mine Pools and Discharges at Bond Release*". The report synthesizes the findings from the EY 16 OSMRE underground mine bond release inspections in Appalachian Region states Kentucky, Pennsylvania, Tennessee, Virginia and West Virginia. The report is currently in review by OSMRE management.

As part of the EY 2017 regional oversight study, OSMRE conducted oversight inspections for all Phase III bond releases at underground mines. During EY 2017, OSMRE reviewed 19 Phase III underground mine bond release applications. OSMRE reviewed the bond release documentation submitted by the permittee, typically consisting of a bond release application, planting report, notification letters, ads, etc. OSMRE personnel prepared for the inspection by reviewing pertinent portions of the permit application, the final underground mine map, as well as the maps for adjacent underground and surface mines. The location of face-ups and punch-outs, as well as the most likely discharge locations were identified through the map review. The outcrop barrier thickness, the potential for mine pool development and the likelihood of a pollutional discharge were also evaluated.

Of the 19 Phase III underground mine bond release applications, 4 were withdrawn prior to the field inspection and 1 permit was determined to have highwall mined the permitted underground acres; therefore OSMRE performed field inspection of 14 permits during EY 2017.

KYDNR drafted a new form during EY 2017 entitled “*Underground Mine Review Bond Release*”, as a result of DMRE finding unapproved, unreclaimed, or punch-outs / portals not reclaimed per the approved permit during bond release inspections. This form which is to be filled out at the time of bond release in addition to the Underground Mine Review form which is completed after the permittee submits their annual underground mine map. The “*Underground Mine Review Bond Release*” form should aide inspectors in becoming more familiar with the underground permit at bond release, especially older underground mines where the inspector may not be familiar with the underground works due to the time passed since the last annual mine map submittal.

Once this oversight study report is finalized, it will contain discussions of the reviewed permits, issues identified, and recommendations regarding resolution of those issues. The underground mine pool study report will be drafted and sent to KYDNR in EY 2018

C. General Oversight Topic Reviews

1. Inspection and Enforcement

Federal Oversight Related Inspections

OSMRE Directive REG-8 established a formula to calculate the minimum number of OSMRE oversight inspections required for the evaluation of State primacy programs. The calculation of the REG-8 mandate for OSMRE oversight in Kentucky identified 309 oversight inspections as the minimum required. In EY 2017, OSMRE conducted a total of 368 oversight-related inspections of which 361 counted directly toward the required REG-8 inspections. The graph below demonstrates the comparison between the minimum REG-8 target inspections and the actual number of inspections conducted that count toward the REG-8 requirement.

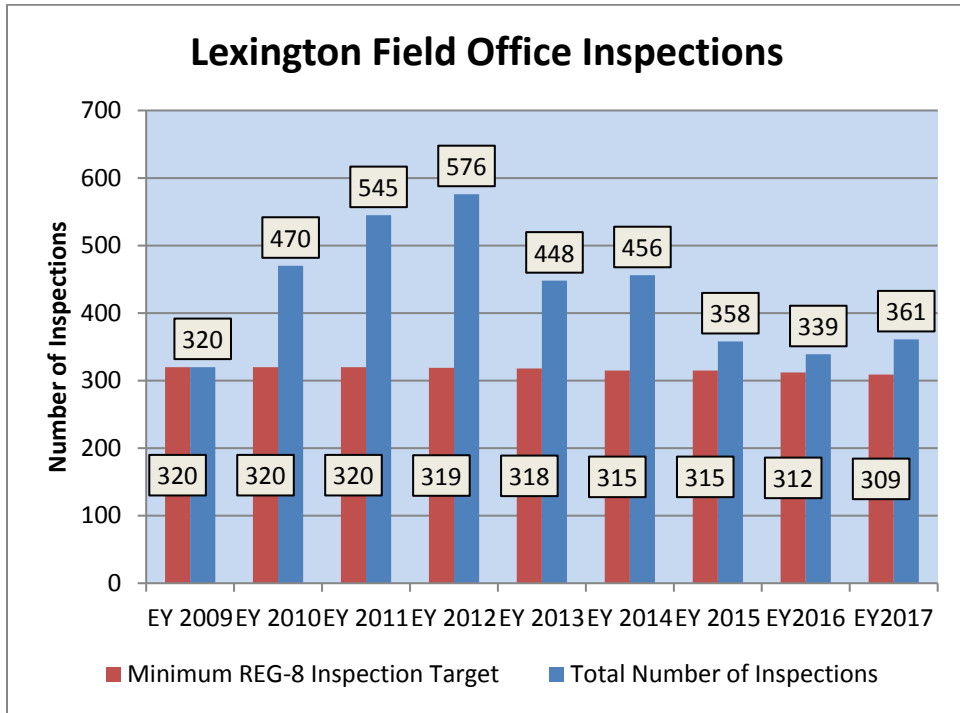


Figure 7. Chart comparing the number of Reg-8 minimum oversight inspections to the total OSMRE inspections.

The following table is a breakdown of the 368 oversight-related inspections conducted by OSMRE. The additional inspections that are reflected in OSMRE’s total inspections are included at the bottom of the table. These inspections investigated citizen complaint review, and document review. The letter codes are OSMRE’s inspection codes used in the Inspection and Enforcement (I&E) database.

Inspection Type	REG-8 Requirement	Number of Inspections	Number of Violations
Oversight Complete (OC)	105	211	257
Oversight Complete Independent (OCI)	30	23	4
Oversight Bond Release Phase III (OBR3)		61	6
Oversight Partial (OPO)		33	31

Inspection Type	REG-8 Requirement	Number of Inspections	Number of Violations
Oversight Bond Forfeiture (OBF)	174	17	0
Oversight AMD Active Inventory (OMDAI)		5	0
Oversight AMD Inventory Deletion (OMDDS)		10	1
Oversight Follow-up TDN (OFTDN)		1	0
Citizen Complaint Review (CCR)	N/A	3	4
Document Review (DR)	N/A	4	9
REG-8 Totals	309	361	299
Total	N/A	368	312

Table 4. This table is a breakdown of the 368 oversight-related inspections conducted by OSMRE.

OSMRE’s oversight format provides 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. Permits are selected at random from Kentucky’s inspectable units list. The randomly selected permits are then used by OSMRE to plan joint oversight inspections with KYDNR. Random inspections are comprised of “oversight complete inspections”, and “oversight complete independent inspections”. “Oversight partial inspections” are normally used for follow-up inspections to previously conducted “oversight complete inspections”, and “oversight complete independent inspections”, However during the EY, 22 of the 33 OPO inspections, were conducted for the PI inspection frequency special study. These inspections account for During EY 2017, 211 comprehensive random inspections, 23 comprehensive independent random sample inspections, and 33 partial inspections were conducted. All 267 inspections were selected from the list of active and Phase I bond released permits for surface and underground coal mining operations. The other inspections that contribute to the REG-8 mandate include “oversight bond forfeiture”, “oversight long term treatment active inventory”, and “oversight long term treatment inventory deletion. OSMRE tracks the compliance data observed during oversight inspections. The following table shows violation data collected during REG-8 inspections.

Inspections Type	Deferred to State	Previously Cited	Abated During Inspection	TDN Issued	Total
Oversight Complete (OC)	118	127	9	3	257
Oversight Complete Independent (OCI)	1	3	0	0	4
Oversight Partial (OPO)	12	18	0	1	31
Oversight Bond Release Phase III (OBR3)	2	0	0	4	6
Oversight AMD Inventory Deletion (OMDDS)	1	0	0	0	1
Totals	134	148	9	8	299

Table 5. This table shows violation data collected during REG-8 inspections.

OSMRE observed 299 violations during oversight inspections, 40 percent of which were cited during oversight inspections. Previously cited violations accounted for 42 percent of the observed violations. OSMRE issued TDNs on Fifteen violations during eight inspections occurring during the EY. Six of the fifteen were related to PMLU and revegetation, two were related to hydrologic balance, three were related to administrative standards, two were related to disposal of excess spoil, one was related to an off permit disturbance, and one was related to a coal processing waste dam. OSMRE is currently reviewing the appropriateness of the state action taken.

The most often cited performance standards for the 299 violations observed during EY 2017 oversight inspections were: Siltation structures, terms and conditions of the permit, groundwater monitoring, and mining within a valid permit.

Comprehensive random inspections conducted by OSMRE are also used to track industry compliance. Industry compliance is defined as a measurement of the number of comprehensive random inspections with no observed violations divided by the total number of comprehensive random inspections and expressed as a percentage. The industry compliance rate of 60% during EY 2017 is the lowest it has been in the past ten-year period, as shown in Figure 9 below.

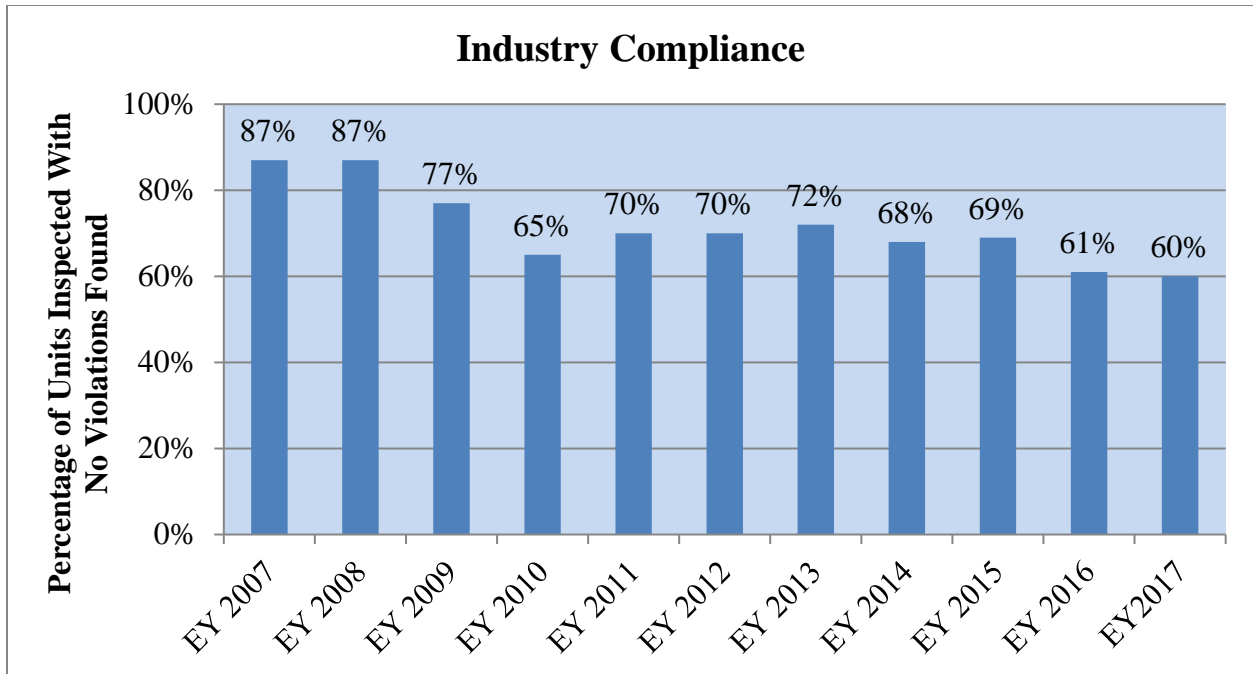


Figure 8. Bar Graph showing the industry compliance over the past 10 years expressed as a percent of permits with no observed violations.

State Regulatory Authority Inspections

During EY 2017, KYDNR completed a total of 6,497 complete inspections and 10,185 partial inspections. KYDNR is required by 405 KAR 12:010, Section 3(5) to conduct one complete, and two partial inspections per calendar quarter on all active mine sites. Inactive and abandoned/forfeited mine sites require one complete inspection per quarter. Inactive mine sites are those that have received a Phase I bond release and meet the requirements listed in 405 KAR 12:010, Section 3(5) or are in temporary cessation. For EY 2017, KYDNR reported the following statistics:

Coal Mines and Facilities	Number of Complete Inspections	Number of Partial Inspections
Active	6,275	10,103
Inactive	190	61
Abandoned	32	21
Total	6,497	10,185

Table 6. Breakdown of inspection statistics for active, inactive, and abandoned sites.

OSMRE tracks inspection frequency throughout EY 2017 and reports the overall frequency annually. KYDNR met the required inspection frequency on 99.74% of the permits requiring inspections. The table below is a summary of the data used to calculate inspection frequency.

Number of Permits Requiring Inspection	1,511
Number of Inspections Conducted	16,682
Number of Permits Meeting Frequency	1410
Percentage of Permits Meeting Frequency	93%

Table 7. This table is a summary of the data used to calculate inspection frequency.

During EY2017 the state of Kentucky had one of the worst wildfire seasons in recent history. Over 70,000 acres burned in CY 2016, which is 50,000 more than the previous. On October 27, 2016, Governor Matthew G. Bevin declared a State of Emergency due to wildfires in Eastern Kentucky. Within this executive order, Governor Bevin authorized the Division of Emergency Management to request any assistance to be made available to provide essential services to the general population and to assist state, local governments and individuals impacted by the emergency. KYDNR’s Division of Mine Reclamation and Enforcement has three regional offices located in Eastern Kentucky with a skilled workforce that had the abilities to assist the Kentucky Division of Forestry in their firefighting efforts. Under the executive order from Governor Bevin, the Division of Mine Reclamation and Enforcement provided twenty-five (25) employees to assist in the fighting of these wildfires, from October 27, 2016 through December 16, 2017. As a result, some mining operations missed partial inspections. Calculating inspection frequency for the EY excluding these inspections raises the frequency to 99.74% rather than the 93.38%, reported. OSMRE was made aware of these missed inspections through written correspondence from the Commissioner of KYDNR, Allen Luttrell. Due to the state of emergency OSMRE elected to agree with the Commissioner’s decision to allow employees to assist in fire suppression and chose to calculate frequencies by not including those missed inspections. Even at the lower frequency rate KYDNR still has met a higher frequency than that was recorded from EY 2009- EY 2012 where inspection frequency averaged 84%.

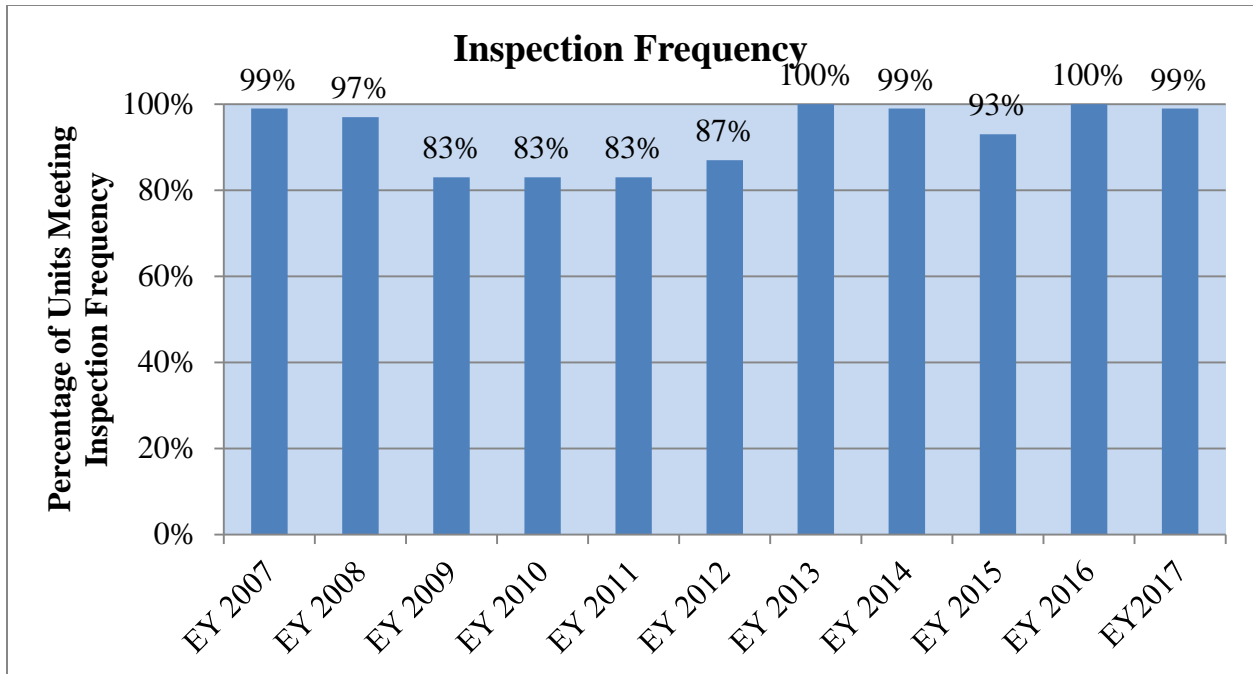


Figure 9. Chart showing the inspection frequency since evaluation year 2007.

During EY 2017, KYDNR issued 796 NNCs. These NNCs resulted in 1,335 violations of performance standards. This is a slight decrease in enforcement actions from EY 2016 when KYDNR issued 960 NNCs with 1,634 violations of performance standards. A complete listing of State non-compliance data (listed alphabetically, by company name) issued by KYDNR is located in Appendix XIV.

A breakdown of the performance standards cited during EY 2017 is listed by totals and percentages in the following table:

Performance Standards Cited During EY 2017

Performance Standard	Total Amount	Total by Percentage (Approx.)	Performance Standard	Total Amount	Total by Percentage (Approx.)
Water Monitoring (WM)	341	25.54%	Revegetation (RV)	16	1.20%
Sedimentation Ponds (SC)	150	11.24%	Liability Insurance (LI)	3	0.22%
Water Quality (WQ)	112	8.39%	Disposal of Non Coal Waste (DW)	12	0.90%
Off Permit Disturbance (OD)	90	6.74%	Use of Explosives (UE)	10	0.75%
Other Permit Conditions (OT)	50	3.75%	Ownership and Control (OC)	0	0.00%
Backfilling and Grading (BG)	63	4.72%	Coal Waste Dams (WD)	14	1.05%
Disposal of Excess Spoil (DS)	71	5.32%	Disposal of Coal Processing (DC)	7	0.52%
General Hydrologic (HR)	30	2.25%	Topsoil (TH)	1	0.07%
Effluent Limitations (EL)	65	4.87%	Flyrock (FR)	0	0.00%
Impoundments (IM)	53	3.97%	Drilled Holes (DH)	3	0.22%
Method of Operation (OM)	46	3.45%	Auger Mining (AM)	2	0.15%
Roads (AC)	47	3.52%	Subsidence (SB)	2	0.15%
Contemporaneous Reclamation (CR)	58	4.34%	Mining Off Permit U/G (OO)	2	0.15%
Diversions (DV)	49	3.67%	Post Mining Land Use (PL)	1	0.07%
Steep Slopes (SS)	16	1.20%	Air Resources Protection (AP)	1	0.07%
Signs and Markers (SM)	16	1.20%	Approved Operator (UO)	1	0.07%

Table 8. Performance Standards Cited During EY 2017

2. Blasting – Adverse Effects

The most serious adverse effect resulting from blasting is flyrock. KYDNR and OSMRE have continued to stress the importance of reducing the number of flyrocks. There were no confirmed flyrock events that occurred during EY 2017. This reduction represents both the downturn in the coal industry and the effort KYDNR and OSMRE have put forth to reduce the number of flyrocks.

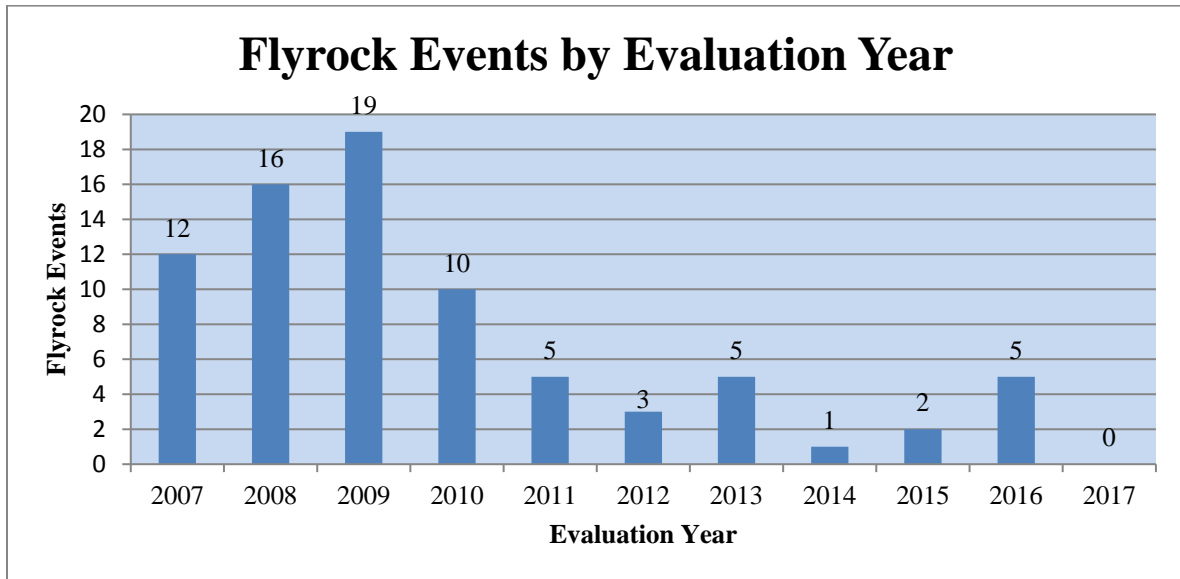


Figure 10. The chart shows the reduced trend of confirmed flyrock events that have occurred during the listed evaluation year since EY 2007.

3. Bond Forfeiture Report

The Draft *Permanent Program Bond Forfeitures Report* is a study conducted by OSMRE to assess whether the reclamation performance bond amounts being set were adequate to complete reclamation in the event of forfeiture. Bond forfeitures have been studied on an annual basis since EY 2007. The prior studies identified concerns regarding the adequacy of reclamation bond amounts and supplemental assurance, the lack of financial assurance that acid mine drainage (AMD) discharges would be treated, and the timeliness of enforcement/legal actions.

Figure 12, below, illustrates the number of forfeited permits over the past ten years. This year's study evaluated the permanent program bond forfeitures that occurred at 17 permits during EY 2016.

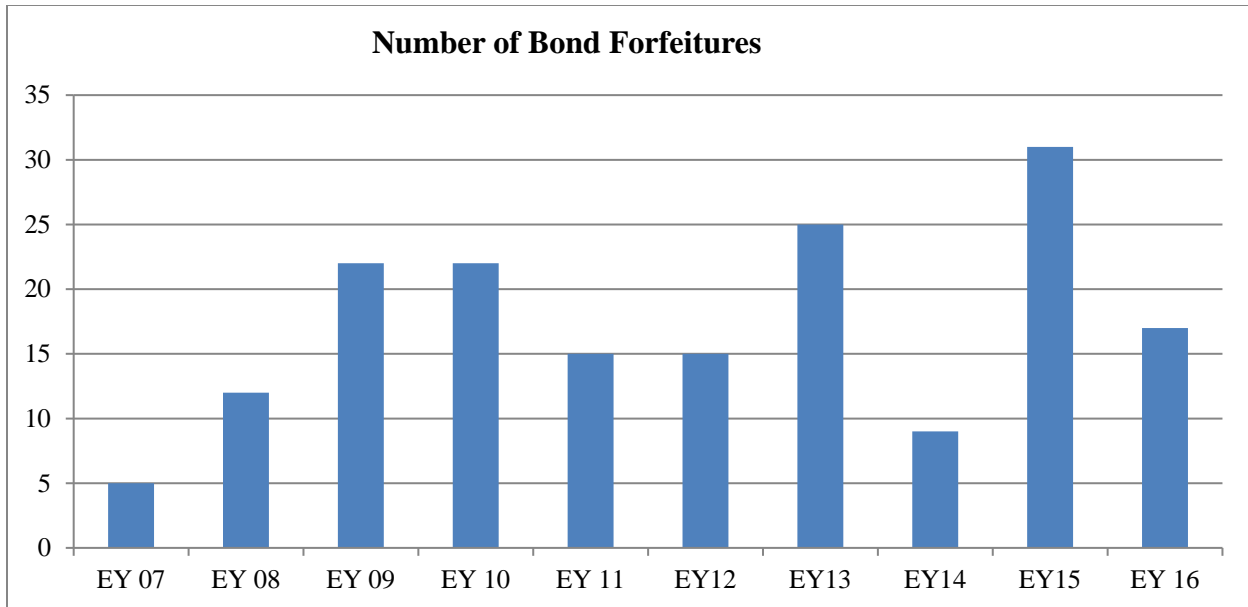


Figure 11. Chart showing the number of forfeited permits for the last ten EYs.

The team found that, when evaluating bond sufficiency using the total bond amount for a permit and the bond amount for each increment, 56% did not have sufficient bond to reclaim the permit or increment to permanent program standards. On average in EY 2016, forfeited increments were under bonded by \$23,683.37. KYDAML’s cost estimates calculated the cost of reclamation of all forfeited increments to permanent program standards to be \$1,865,953.25. Total bond posted for the 38 increments equals \$984,879.00 which accounts for 52.8% of the total cost of reclamation.

The National Priority Review Report on bond calculation, completed on January 5, 2011, indicated that the bond computations protocol used at the time did not always yield sufficient bond to complete the reclamation required in the approved permit. This substantiated the results of studies done on bond forfeitures by OSMRE. As a result, on May 1, 2012, OSMRE initiated the 30 CFR Part 733 process which requires Kentucky to correct its bonding deficiencies or face a Federal take-over of part or all of the State’s surface coal mining program. KYDNR submitted two program amendments to OSMRE in response to the 733 action: 1) the bonding protocols on September 26, 2012 and, 2) the creation of the bond pool on December 4, 2013. These amendments were combined under one Federal Register notice and have been given the program amendment number KY-256. OSMRE is currently reviewing the program amendment and will continue to work closely with KYDNR to resolve the 733 action.

4. Fill Inventory

Since CY 1999, OSMRE and KYDNR have collected information on a calendar year (CY) basis for the size and location of excess spoil disposal fills for all new permits, amendments, and major revisions issued. This information includes data on both newly permitted fills, and modifications to permitted fills. OSMRE and KYDNR use the data to do trend analysis for the total number and

size of fills permitted from year to year. Figure 13, below, shows the total number of fills permitted every year since CY 1999.

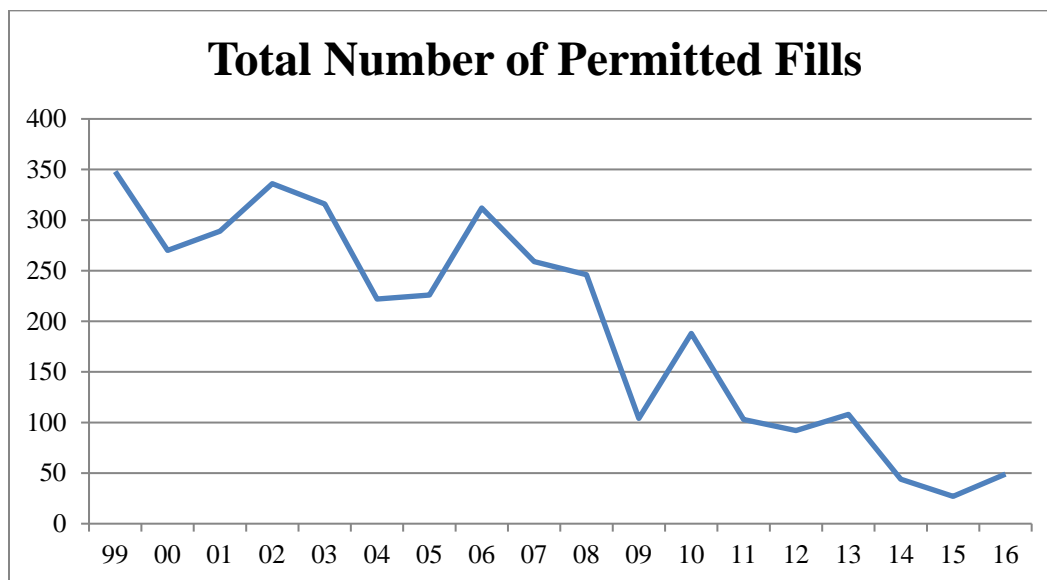


Figure 12. Chart showing the total number of fills permitted during Calendar Years 1999 through 2015.

In CY 2016, KYDNR issued 109 permitting actions (14 new permits, 44 amendments, and 51 major revisions) in CY 2016 involving surface, underground, or other mining operations. LFO and KYDNR found 16 permitting actions that contained information on 49 fills. The other 93 permitting actions did not involve fills.

5. Long-Term Treatment

The Kentucky Long Term Treatment (LTT) Inventory is a list of permits which require treatment in order to meet KPDES requirements; it is maintained by KYDNR Frankfort Central Office staff. Ponds (sites) are added to the inventory as field staff identifies the need for treatment during inspections. The inventory includes two sections, active and historical. The active inventory includes all sites which currently require treatment. The historic inventory includes sites that were once on the active inventory, but were approved for removal because treatment was no longer necessary. The KYDNR policy entitled “Procedure for the Identification and Inventory of Long Term Treatment Sites” dated May 6, 2013, describes KYDNR’s definition of treatment, as well as when a site is eligible to transition from the active to historical inventory. Once a site is added to the active inventory, the permittee is notified that a permit revision is necessary to identify the location and type of treatment. The revision must either demonstrate that the substandard discharge will be remediated through land reclamation, or provide an estimated annual treatment cost. If annual costs are provided, KYDNR calculates a bond (LTT bond) in the amount of twenty

times the annual cost of treatment plus any set-up costs. During EY 2017, 7 sites, from 7 permits were added to the LTT active inventory.

As part of the performance agreement, KYDNR notifies OSMRE when a site is eligible to transition from the active to historical inventory. OSMRE performs field inspection of these permits to catalog the conditions at each site. During EY 2017, OSMRE was notified that 11 sites from 10 permits were eligible to transition from the active to historical Inventory. Another site was removed as it was determined it was added to the LTT Inventory in error. OSMRE performed 10 Oversight Mine Drainage Deleted Site inspections during EY 2017. Of the permits inspected, 2 were determined to be ineligible to transition from the active to historical inventory. Pond 2 on Covol Fuels No. 3 LLC, Permit No. 807-5238 was determined to be ineligible because water discharging from the structure on the date of the inspection was not in compliance with the KPDES permit. Pond BP-30 on Nally and Hamilton Enterprises Inc., Permit No. 848-0233 was determined to be ineligible because of poor quality water entering the structure.

In addition to Oversight Mine Drainage Deleted Site inspections, OSMRE also performs Oversight Mine Drainage Active Inventory (OMDAI) inspections. During an OMDAI inspection, OSMRE documents the treatment system and performs an investigation of the pond(s) where the treatment is occurring. The inspection also includes a review of the approved LTT permit documents and DNR's bond calculation. The KYDNR inspector, and when available, a permittee representative, are interviewed to determine if changes to the treatment system have occurred over time. The observations made in the field (treatment system configuration, chemicals, number of ponds, use of electricity, etc.) are compared to that described in the approved permit, to determine if the permit adequately described the treatment system. OSMRE conducted 5 OMDAI inspections during EY 2017. The permits were randomly chosen from the KYDNR LTT Inventory. Permits included in the EY 2017 study include Terry Glenn Coal Company, Permit No. 848-5119; High Ridge Mining Company, Permit No. 898-0939; River View Coal LLC, Permit No. 913-5015; Belfry Coal Corporation, Permit No. 836-5601 and New Ridge Mining Company, Permit No. 898-9160. The inspections occurred between April 3 and May 30, 2017. OSMRE is currently drafting a report summarizing the findings of the EY 17 OMDAI inspections.

6. Phase I Inspection Frequency Study

This special study was developed to determine if KYDNR was reducing its inspection frequency at the appropriate time as per their regulations; Kentucky Administrative Regulation (KAR) 405 section 12:010 General Provisions for Inspection. This law states that partial inspections of surface coal mining and reclamation operations shall be conducted an average of at least one partial inspection per month. Partial inspections are to occur at least until Phase I reclamation has been achieved on the entire permit area. After Phase I reclamation, or if the cabinet has received notice of temporary cessation, the cabinet shall conduct partial inspections until the cabinet determines that the permit area is sufficiently stable with respect to mass stability, erosion, revegetation, water quality and other reclamation requirements so that the quarterly complete inspections required will provide adequate inspection of the permit area.

Permits were chosen using the KYDNR's Surface Mining Information System, to determine when a permit was placed into Phase I status. Once a permit was in Phase I status, an authorized individual from OSMRE conducted a file review to determine if the bonds were released during the EY. After it was determined that the permits was in Phase I status and the bonds had been released during EY 2017, OSMRE and a representative(s) from KYDNR scheduled a site inspection. This partial inspection was solely to determine if the permit met the criteria of 405 KAR 12:010. Once the inspection was conducted a summary of the site conditions was compiled as well as recommendations if the permit met the criteria for a reduced inspection frequency. These summaries and recommendations were then used to compile this report.

PERMITTEE	Permit#	Acres Permitted	Date Phase I Received
Alden Resources LLC	918-0470	224.4	9/12/2016
Alden Resources LLC	861-0529	236.9	1/24/2017
D & J Coal LLC	832-0068	197.48	2/28/2017
Don Bowles Corporation	854-8011	397.64	8/23/2016
Investment Energy LLC	918-0462	18.25	2/13/2017
Kentucky Fuels Corporation	860-5337	262.45	8/30/2016
Kentucky Fuels Corporation	860-5350	667.07	8/22/2016
Landfall Mining Incorporated	898-9144	18.1	1/20/2017
Liberty Management LLC	897-0611	917.3	9/23/2016
Liberty Management LLC	898-0989	1410.17	10/31/2016
Liberty Management LLC	898-0990	803.19	10/13/2016
Liberty Management LLC	836-0458	603.49	11/02/2016
Liberty Management LLC	836-0456	361.9	1/4/2017
Locust Grove INC	897-0502	421.6	11/14/2016
Locust Grove INC	897-0531	414.4	1/26/2017
Locust Grove INC	897-0449	1,226.87	4/18/2017
Nally and Hamilton Enterprises INC	807-0372	666.69	8/15/2016
Nally and Hamilton Enterprises INC	807-0371	54.77	2/13/2017
Pine Branch Mining LLC	897-8057	202.25	1/31/2017
Revelation Energy LLC	898-0982	233.41	10/31/2016
Rex Coal Company INC	848-5414	892.63	12/13/2016
Wellmore Coal Corporation	898-0868	68.4	2/13/2017

Table 9. Table that lists the permits evaluated for the Phase I Inspection Frequency Study.

OSMRE is currently drafting a report that summarizes the results of this study. A draft of the study will be sent to the state for comment in EY 2018

VII. The Approved State Program

The Kentucky State program was conditionally approved in 1982. Since that time the State has submitted 258 amendments to the approved program. Part 732 of 30 CFR provides the regulatory framework for states to maintain the approved program in accordance with SMCRA through program amendments. Part 733 of 30 CFR allows for the substitution of federal law, in the place of state law. KYDNR currently has three program amendments pending. The following table describes the active program amendments.

Amendment Number	Description	Status
KY-254-FOR	Statutory changes resulting from the passage of HB 385 during Kentucky’s 2011 Legislative Session. The amendments to Kentucky Revised Statutes (KRS) 350.060 require any changes to the bonding protocol currently in use to be promulgated in an administrative regulation. The amendment also requires the formula used to establish the bond amount to be included in the administrative regulation. The administrative regulation will be found deficient if the formula is not included.	Final review under consideration by OSMRE
KY-255-FOR	The State submitted administrative regulations as proposed amendments that are intended to be a cost saving measure regarding electronic notification of enforcement documents required under KRS Chapter 350.	Awaiting the submission of a correction to the amendment by the State
KY-256-FOR	This originally was an interim final rule. The KYDNR is concurring with the Governor’s decision to make the bond adequacy effective immediately, based in part to OSMRE’s 733 letter issued May 1, 2012. KYDNR also submitted regulations that will go through their normal process including our program amendment process. This amendment has been combined with KY-257 in federal register notice 80 FR 15953, on Thursday, March 26, 2015.	Final review under consideration by OSMRE
KY-258-FOR	Kentucky seeks to amend the language within its approved program with the intent to clarify what is required for a permit applicant to demonstrate right of entry/right to mine when the proposed operations entail land with severed surface and mineral estates.	Under consideration by OSMRE

Table 10. Active Program Amendments.

VIII. Regulatory Program Problems and Issues.

A. 733 Action

In January 2011, OSMRE concluded that KYDNR was not requiring adequate bond to be posted to ensure complete reclamation of mine sites. An action plan was developed that assigned a joint OSMRE/KYDNR team to review KYDNR proposals for revising the current bonding protocols to reduce the bond shortfalls. On January 17, 2012, OSMRE concluded that, while the bond protocols proposed would result in an overall improvement, the resulting bond amounts would remain inadequate. On May 1, 2012, OSMRE initiated the 30 CFR Part 733 process which requires KYDNR to correct the bonding deficiencies, or have Federal law substituted for part or all of the Kentucky surface mining program, including AML funding.

On May 4, 2012, Kentucky adopted emergency regulations to revise the bonding program to prevent OSMRE from taking over responsibility for the reclamation bonding program. At the same time Kentucky also began the review process to change the permanent administrative regulations to match the emergency regulations.

On March 22, 2013, Governor Beshear signed House Bill 66 resulted in statutes found at KRS 350 and administrative regulations at 405 KAR. The bill immediately established the Kentucky Reclamation Guaranty Fund as a reclamation account, requiring mandatory participation, unless the permittee opts for full cost bonding. The account is designed to cover the excess costs of reclamation for coal mining sites when the permit specific bond is inadequate.

A summary of the changes to the bonding program was published in the Federal Register, 80 FR 15953, on Thursday, March 26, 2015. Written comments were accepted until April 27, 2015. There were no requests for a public hearing. Currently Kentucky's proposed program changes are under final review.

During EY 2017 the actuarial report for FY 2014 and 2015 were completed. These studies are to assess the soundness of the fund against the bond forfeitures that occur under the revised protocols. The actuarial reports found the fund to be solvent. OSMRE staff have reviewed the reports and determined that the overall the projections used seem reasonable. OSMRE will continue to review future audits and actuarial studies as they are completed, to monitor the soundness of the fund.

IX. OSMRE Assistance- Regulatory Program

A. Grants

The Administration and Enforcement (A&E) Grant provided by OSMRE to Kentucky funds 50% of the regulatory program with the State being required to provide the other 50% in matching funds. The final 2015 A&E grant awarded Kentucky a total of \$11,631,247 including indirect costs. Kentucky received \$1,419,423 to administer the Federal Lands Program which is 100 percent Federally-funded. KYDNR de-obligated \$475,000 from the 2015 A&E grant for failure to match Federal funds. The amount awarded by OSMRE for the 2016 A&E grant was \$11,632,000 of which \$1,441,801 is to administer the Federal Lands Program. At the end of the EY 2017, the A&E grant was supporting 180 positions in the regulatory branches of KYDNR.

KYDNR regulatory branch which consists of the Department of Reclamation and Enforcement and the Division of Mine Permits is 50% federally funded. KYDNR continues to be limited by the inability to match the allocated federal funds with state appropriations, effectively reducing the total funds available to the coal permitting and enforcement programs. In addition, KYDNR has been required to rely on restricted receipts, principally the collection of permit application fees, to make their match. KYDNR reports that at the end of EY 2017 the Division of Permits is down to 30 permit review and maintenance employees from 61 during the previous year. The Division of Enforcement and Reclamation is staffed with 108 inspection related employees which is down from 134. Of the inspection related personnel 53 were inspectors carrying a load of permits. The total number of inspectable units for EY 2017 was 1,511; this gives KYDNR a ratio of one field inspector per 28.5 inspectable units.

B. Training

The KYDNR participated in OSMRE's National Technical Training Program (NTTP) and Technical Innovation and Professional Services (TIPS) Training Programs which offer AML and regulatory agencies introductory and advanced training classes. During EY 2017, KYDNR had 59 participants in TIPS and 51 participants in NTTP classes. NTTP provided training in the following areas: Coalfield Communications, Forensic Hydrologic Investigations, Erosion and Sediment Control, Subsidence, Passive Treatment, NEPA Procedures, Soils and Revegetation, Wetlands Awareness, Surface and Groundwater Hydrology, Advanced Blasting Investigations and Analysis, Mine Gas Safety and Investigations, Geology and Geochemistry of Acid Forming Materials, Historical and Archaeological Resources, Applied Engineering Principles, AML Design Workshop: Dangerous Highwalls, AML : Landslides, AML: Dangerous Openings and AML: Subsidence. TIPS courses attended by KYDNR employees included AutoCAD for Permitting and Reclamation, Carlson Mining Site Design, Mobile GIS for Reclamation Analysis and Analysis, Global Mapper, Introduction to GIS, Introduction to GPS, SEDCAD Applications and Extensions, AutoCAD Map 3D, Android and iOS Devices, ARCGIS Spatial Analysis, Modeling and Analysis with Groundwater Vistas, CAD 400 and CAD 301. KYDNR continues

to utilize both hardware and software provided through TIPS. The GIS and AutoCAD software packages are the most common programs used by KYDNR. During this EY, DNR provided five instructors for the NTTP courses that included Wetlands Awareness, Permit Findings, SMCRA and the ESA: the 1996 Biological Opinion, Surface and Groundwater Hydrology and both of the blasting courses.

C. Interagency Coordination

KYDNR and OSMRE meet biannually with other state and federal agencies (Kentucky Department for Environmental Protection, Kentucky Geological Survey, United States Army Corp of Engineers, United States Environmental Protection Agency, United States Fish and Wildlife Service (USFWS), and the United States Geological Survey) that have a vested interest in SMCRA activities to improve coordination and communication. KYDNR and OSMRE have established working relationships and open dialogues between all agencies involved with the permitting and inspection of mine sites within Kentucky and the region.

1. Clean Water Act

The Clean Water Act Authority in Kentucky is the Division of Water, which issues Kentucky Pollutant Discharge Elimination System Coal Permits. The Kentucky Division of Water and KYDNR work cooperatively to ensure compliance with these permits.

KYDNR issued 40 Cumulative Hydrologic Impact Assessments (CHIA) during EY 2017. Of the 40 CHIAs, 10 were for new permit applications, 26 for amendments and 4 for a major permit revision. KYDNR continued trend station monitoring to measure water quality impacts at 177 sites in Hydrologic unit code-12 watersheds. KYDNR is currently matching OSMRE funds using a \$240,000 in funds obtained from a litigation settlement. At the end of EY 2017, KYDNR still had \$218,363 of the funds available for monitoring.

The OSMRE Appalachian Region has begun performing a review of KYDNR's CHIA process. The review is the first of four phases being used to evaluate CHIAs in Kentucky, Maryland, Ohio, Pennsylvania, West Virginia and Virginia state regulatory programs and the Tennessee Federal regulatory program. The purpose of the evaluation is to Document the CHIA processes currently being used in each state and determine whether the state regulatory authorities and the OSMRE Knoxville Field Office in Tennessee are implementing the CHIA process as required by the applicable statutes, regulations, and internal policies and procedures. In addition, the review will document the following information regarding the specific CHIA processes:

1. Size of cumulative impact areas (CIAs)
2. Criteria for establishing monitoring points (trend stations) and determining if any such monitoring points match the CIAs or are used in any way to validate CHIAs.
3. Differences between surface and groundwater CIAs

4. Methods of evaluating impacts both to the quantity and quality of surface and ground waters
5. Definition of material damage
6. Thresholds for determining material damage
7. Events that trigger a new or revised CHIA

OSMRE documented the KYDNR CHIA process by reviewing existing policies and guidelines governing the CHIA process and interviewing permit review staff. KYDNR provided OSMRE with a list of all new permits, amendments and major revisions processed since August 2010. From this list, 18 CHIAs were randomly selected for review. The CHIA and any pertinent permit documents were reviewed as part of the process. A standardized CHIA Data Collection Form developed by OSMRE was completed using information obtained during the policy review, staff interviews, and permit reviews. The reviews have all been concluded and a report is currently being drafted. The Report is expected to be complete during EY 2018.

2. Endangered Species Act

On September 24, 1996 the Biological Opinion was issued by the USFWS to OSMRE on the surface coal mining and reclamation operations under State and Federal regulatory programs adopted pursuant to Title V of SMCRA where mining operations “may adversely affect” species listed as threatened or endangered or designated critical habitat under the Endangered Species Act. OSMRE works in conjunction with the USFWS to ensure that proposed, threatened, and endangered species and critical habitat are adequately protected for all permitting actions, including exploration operations, initial permit issuance, renewals, and significant revisions. The Biological Opinion is important for Kentucky, a primacy state, because there is not a cooperative agreement with the Secretary of interior to assume responsibility for operations that may adversely affect species.

During EY 2017, KYDNR received 20 Protection and Enhancement Plans (PEPs). When a threatened and endangered species is suspected to be present in the area, KYDNR requires that permit applicants either conduct a survey to determine if the species is present at their site or assume the presence of the species and submit a PEP. They requested surveys or PEPs related to bat species from 24 permit applicants, 16 permits elected to conduct surveys.

3. National Historic Preservation Act

The National Historic Preservation Act of 1966 provides protection for our nation’s historic resources and establishes the Federal government’s policy on historic preservation and the national historic preservation program. They are the statute, and basic implementing regulations that explain how a Federal agency is to take into account the effects of their undertakings on historic properties listed in or eligible for listing in the National Register.

The Kentucky Heritage Council is required to “prepare and maintain an inventory or survey of Kentucky’s resource of historic buildings, sites, structures, and other landmarks, and list in an official roll those landmarks which possess statewide or national significance”. KYDNR assists in identifying coal mining related activities that may affect historic properties within the State.

During EY2017 surveys were conducted in nine counties. Within the nine counties thirteen surveys were required, and eleven have been received. The results of these surveys identified four historical sites, which include a historical home in Mclean County, a prehistoric lithic scatter in McLean County and two historic scatters that were relocated in Union County

4. Federal Lands

In 1998, KYDNR and OSMRE signed a cooperative agreement that gave KYDNR the authority to administer the regulations of coal mining activity on federal lands. OSMRE provides assistance to federal agencies in meeting their procedural requirements. OSMRE is also responsible for making determinations of valid existing rights for KYDNR for permittees requesting to surface mine on United States Forest Service owned land. There are several Federal agencies which manage land that have or had coal mine permits in Kentucky including the United States Army Corps of Engineers, the Tennessee Valley Authority, the United States Forest Service, and the Bureau of Land Management. In EY 2017 KYDNR processed, two major revisions that included federal lands.

OSMRE attends and provides input to the subject federal agency on all phases of bond releases on federal lands. During EY 2017, OSMRE did not receive any notices of bond release that included federal lands.

X. Abandoned Mine Lands Reclamation

A. General: Introduction and Program Administration

KYDAML implements the AML reclamation program and successfully achieves lasting and effective reclamation of mined lands that eliminates hazards to the public and restores land to beneficial uses.

B. Noteworthy Accomplishments

KY DAML accomplished a great deal in EY 2017, some of these accomplishments are listed below:

- The Director of KYDAML traveled to Washington, D.C. in the Spring (2017) and testified at a Congressional Legislative Hearing in support of the RECLAIM Act which will accelerate the distribution of AML funds to Kentucky, and other AML Program states, for the purposes of AML reclamation associated with economic development.
- KYDAML continues to utilize AML Pilot Project funding (\$30 million dollar AMLER Grant) to spur economic development activity on, or adjacent to, AML sites. Nine projects were chosen for this funding. During the evaluation year, eight of the nine project proposals received initial OSMRE approval; one project received final OSMRE approval; three projects have formal Memorandum of Agreements in place between the contractors and the Energy and Environment Cabinet; three projects are in the design phase; and one project is in the construction phase.
- KYDAML received official notification that it has been selected to receive a second round of AML Pilot Project Funding in the amount of \$25 million dollars. KY DAML will submit a grant application for this funding in similar fashion to the first round of AML Pilot Project Funding.
- KYDAML continues to employ drones for aerial reconnaissance. The Division is currently using four drones for AML and bond forfeiture overflights.
- KYDAML is hosting the National Association of Abandoned Mine Land Programs Annual Conference in Lexington, KY, September 24-27, 2017. The division expended considerable effort this evaluation year in preparation for the Conference.

C. Public Participation and Outreach

The Kentucky Abandoned Mine Land program works on sites that are deemed eligible for AML funding. The projects that are submitted for approval for funding are generated from the public, who request investigation of problem areas they believe have been caused by past mining activity.

The KYDAML program receives a high volume of citizen complaints because of the long history of past mining and the steep topography in eastern Kentucky. As seen in the table below, the KYDAML still receives and responds to many requests for assistance on an annual basis.

Calendar Year	Complaints Received	No. Deemed AML Eligible
2014	722	42
2015	963	32
2016	Approx. 400*	14
2017	479	37

Table 11. Complaints received by KYDAML

*** - Through August of 2016.**

In general, averages of 7% – 10% of the investigations that KYDAML pursues are eligible for AML funding. These sites are scrutinized to ensure that they are eligible for funding; meaning that the AML mining influence is the predominant cause of the problems being alleged. Unfortunately, many cases are made worse by individuals attempting to resolve a small issue on their own and can significantly impact the eligibility of the project.

The KYDAML receives requests at either the field office or their Frankfort (main) office. Occasionally, OSMRE also receives complaints, which are referred to the State. The field office staff for Kentucky does an initial investigation and interviews the complainant, evaluates the problem identified by the land owner, and usually takes samples and photos to document the site. The summary report is then forwarded to the Frankfort office for further evaluation.

If the initial investigation concludes past mining might be the cause of the complaint, the staff at the main office does a review of all known mining records, including mine maps, old field notes from past reviews, and GIS layers. KYDAML uses the compiled information to determine if the complaint is AML related. It is often necessary to send out staff to the site to verify information

found during the record review. Some of these reviews can take several days, weeks to even years, depending on the nature of the problem and complexity.

Sites that are deemed eligible are sent to KYDAML for preparation work to begin to build a project to reclaim the site. The key steps in the process include development of the construction plan, detailed design work for cost estimates, etc. Once the design is complete, the features to be reclaimed are entered into the e-AMLIS to document the features, costs and location in the inventory.

As previously mentioned KYDAML and OSMRE sought public involvement in soliciting proposals for the AMLER grant funds. KYDAML met with interested parties in several different forums including an OSMRE hosted meeting, meetings they sponsored, and at the Shaping Our Appalachian Region conference in Pikeville, Kentucky where they also presented an overview of the AMLER grant process and criteria.

D. OSMRE Assistance- Abandoned Mine Lands

OSMRE provides 100 percent funding to Kentucky for the AML program. 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 Evaluation Year. For example, the State began drawing its Federal FY 2016 A&E grant money allocation on September 1, 2016. Prior to that time, they operated on FY 2015 money. 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 evaluation year.

The AML program is funded by the collection of fees from active coal mining across the country. The authority to collect these fees was set to expire in 2004 and extended into 2005. This authority was reauthorized in 2006 and, among other things allowed the states to receive the unappropriated balances that were held for them in the AML Trust fund. This distribution was to take place over 7 years which significantly increased the Kentucky AML program funding through FY 2015.

This increase in funds allowed Kentucky's AML program to address higher cost projects that previously were unfunded, including waterline projects. The higher cost of waterline projects frequently requires multiple partners with varied funding sources. KYDAML provides funds only to areas that had been impacted by pre-law mining. Other partners would fund non-AML areas served by the waterline. The increased rate of funding ended with the 2014 distribution and the funding levels returned to previous distribution rates.

In FY 2016, OSMRE awarded \$17,088,577 to KYDNR for their AML program. In EY2017 (July 1, 2016 to June 30, 2017), OSMRE distributed and awarded \$12,649,694 to KY for its FY2017 AML program. Also in EY2017, OSMRE distributed \$25,000,000 to KY for its AML Pilot program. (The AML Pilot funds were not awarded prior to June 30, 2017.) At the end of the Evaluation Year the grant was supporting 93 positions.

E. Results of Evaluation Year 2017 Reviews

1. Overall Reclamation Success

During EY 2017, the KYDAML submitted 87 new project proposals to OSMRE for ATP.

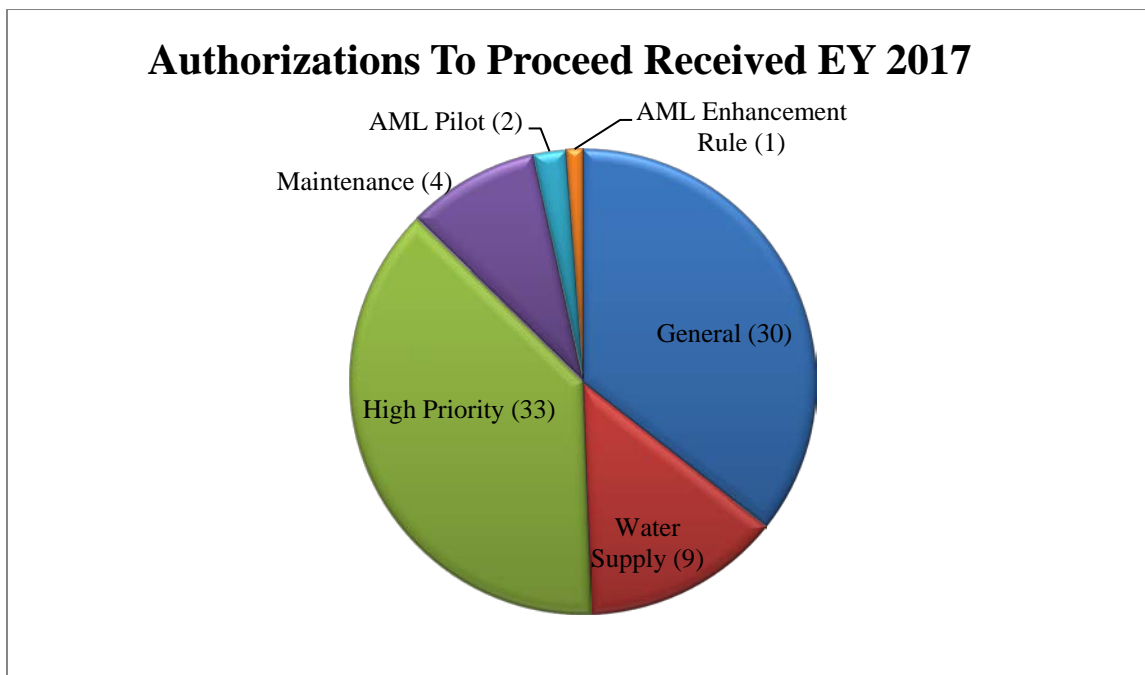


Figure 13. The Number and type of projects submitted for authorizations to proceed in EY 2017

The KYDAML conducts project monitoring through periodic, monthly, and final construction inspections. During EY 2017 the KYDAML used only in-house staff for inspections. These inspections are often conducted jointly with OSMRE AML Inspectors. As part of its oversight the OSMRE conducted a total of 255 inspections of KYDAML projects during EY 2017. This included 7 pre-authorization inspections, 56 pre-construction inspections, 117 active construction inspections, 72 final construction inspections, and 3 follow-up inspections.

In the course of these inspections, OSMRE identified 50 concerns in EY 2017. A total of 24 concerns were identified in EY 2016. The concerns covered such issues as revegetation, construction progress, deviation from approved plans, sediment control installation and maintenance, stability issues, and questions related to the NEPA. Forty-one (41) of the 50 concerns were deemed to be “major”. The remaining 9 were considered “minor”. Major and minor determinations are made in the field by the AML Inspector, and are based on factors as the nature of the problem, magnitude, and potential environmental impacts. The OSMRE is conducting two evaluations in EY 2018 to help determine the cause of the rise in the number of concerns. These

evaluations will help to reveal areas where possible programmatic changes could limit the number of concerns found in the field.

2. Acid Mine Drainage

Prior to FY 2008, the KYDAML decided that their AML grant funds were insufficient to take advantage of SMCRA's AMD set aside program. In recent years, the KYDAML began participating in the AMD program by requesting funds each year for their AMD fund. The KYDAML did not request AMD set-aside funds in the FY 2016 or FY 2017 grant applications.

These funds may be used to cover program administration, planning, design, construction, and construction monitoring. This program area has had a relatively short history in Kentucky. The first AMD project in Kentucky was announced in April 2008. In EY 2017, the KYDAML completed three AMD projects: The Burt Melton AMD, the Bob Carter AMD, and the David and Emma Shepherd AMD.

3. Water Supply Restoration

The KYDNR provides AML funds to install new and/or enhance existing water supply infrastructure that is administered by local city or county municipalities and/or other public water commissions. These projects provide a steady supply of good quality water for municipalities and for private water supplies where water supplies have been impacted by AML-eligible coal mining. Frequently, these projects combine other federal, state, and local governmental funds to provide public water to a larger area. The other sources of funding allow non-AML-impacted areas to also receive water service.

The AML program funds a portion of the cost of these water replacement projects based on the mining impacts found in groundwater quality and quantity studies. The funds are most commonly used to install water storage tanks, booster pump stations, and residential water meters. They also allow for the extension or improvement of existing water lines and water facilities serving AML-impacted areas.

In EY 2017, KYDAML submitted twelve new water supply projects to OSMRE for ATP. During the EY KYDAML had 21 total projects under construction and proposed. These projects would install 421,689 feet of new water line that will provide safe domestic water supplies for approximately 1,248 residential customers. The combined cost of projects proposed during this evaluation year was \$20,366,695.

4. AML Grant Fiscal and Administrative Reviews

OSMRE awards grants to the states annually. These grants have a term of three years. The KYDAML program maintains a procedure to ensure that grant dollars are used efficiently to maximize the use of the funds before they expire. OSMRE did not conduct a review of KYDAML

drawdowns and disbursements of the OSMRE grant funding during EY 2017; however, OSMRE reviewed and approved several grant actions through the year which included the review and approval of both the FY2017 grant award and the application for the AMLER grant.

A single audit conducted by the Kentucky Auditor of Public Accounts in 2012 identified an issue with tracking data associated with sub-recipients involved with AML waterline projects. Kentucky developed new policies and procedures including a tracking system to ensure timely submittal of A-133 monitoring reports. To ensure all data was captured for active projects, Kentucky developed an action plan to ensure the appropriate information for these active projects would be collected and provided, as requested, to the OSMRE Lexington Field Office and the Appalachian Regional Office Grants staff.

Kentucky has implemented the approved action plan which has a schedule for documentation to be provided to OSMRE regarding the grant sub-recipients. This process will include the future AMLER projects. More information will be provided in the next annual report as the projects are approved for funding and ATP's are completed.

5. e-AMLIS

The KYDAML fully supports direct access to the electronic Abandoned Mine Land Inventory System (e-AMLIS), which allows the state to directly upload AML problem area data. KYDAML has been directly updating the e-AMLIS since the fall of 1995. On July 6, 2004, KYDAML submitted a letter certifying that there is a process to ensure the accuracy of data input into the e-AMLIS. This data is used in compliance with current OSMRE e-AMLIS guidelines. The e-AMLIS database allows OSMRE staff to update the database for new sites and/or review proposed entries as soon as they are entered into the inventory by KYDAML.

When new AML problems are identified, information on the site conditions and estimated costs for project construction is entered into the e-AMLIS database. The problem area information is updated between the project proposal and project completion phases. In EY 2017, KYDAML updated or entered 462 problem areas into the e-AMLIS. The proposed budgets for all new projects are entered as "unfunded" until the project is approved via the ATP process. Once approved, the project budget is changed to "funded" status. Lastly, after the construction is completed and final inspections confirm that the project goals have been met, the budget status is changed to reflect a "completed" status.

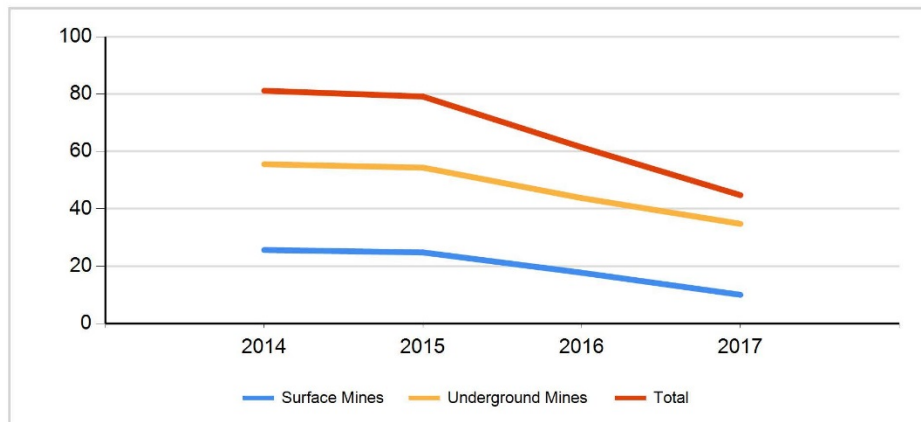
XI. Appendix 1 Summary of Core Data to Characterize the Program

TABLE 1

COAL PRODUCED FOR SALE, TRANSFER, OR USE ^A <small>(Millions of short tons)</small>			
Calendar Year	Surface Mines	Underground Mines	Total
2013	25.6	55.6	81.2
2014	24.8	54.4	79.2
2015	17.7	43.7	61.5
2016	10.0	34.8	44.8

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



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

Calendar Year	Surface Mines	Underground Mines	Total
2013	25.6	55.6	81.2
2014	24.8	54.4	79.2
2015	17.7	43.7	61.5
2016	10.0	TABLE 1 34.8	44.8

^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									Area in Acres ³				Total Area
	Permanent Program Permits				Initial Program Sites				Insp. Units ^{1, 2}	Permanent Program Permits (Permit Area)		Initial Program Sites		
	Active	Inactive	Abandoned	Total	Active	Inactive	Abandoned	Total		Federal Lands	State/Tribal and Private Lands	Federal Lands	State/Tribal and Private Lands	
Surface Mines	638	37	2	677	0	0	0	0	677	5,934	458,819	0	0	464,753
Underground Mines	512	9	1	522	0	0	2	2	524	124,252	1,291,996	0	10	1,416,258
Other Facilities	305	4	1	310	0	0	0	0	310	1,019	53,429	0	0	54,448
Total	1,455	50	4	1,509	0	0	2	2	1,511	131,205	1,804,244	0	10	1,935,459
Permanent Program Permits and Initial Program Sites (Number on Federal Lands: 0)				Total Number:				1,511				Average Acres per Site:		1,280.91
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):				Total Number:				1.00				Average Acres per IU:		1,280.91
Permanent Program Permits in Temporary Cessation:				Total Number:				184				Number More than 3 Years:		32
EXPLORATION SITES				Total Number of Sites				Sites on Federal Lands⁴				Exploration Inspectable Units		
Exploration Sites with Permits:				0				0				0		
Exploration Sites with Notices:				203				0				0		
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**

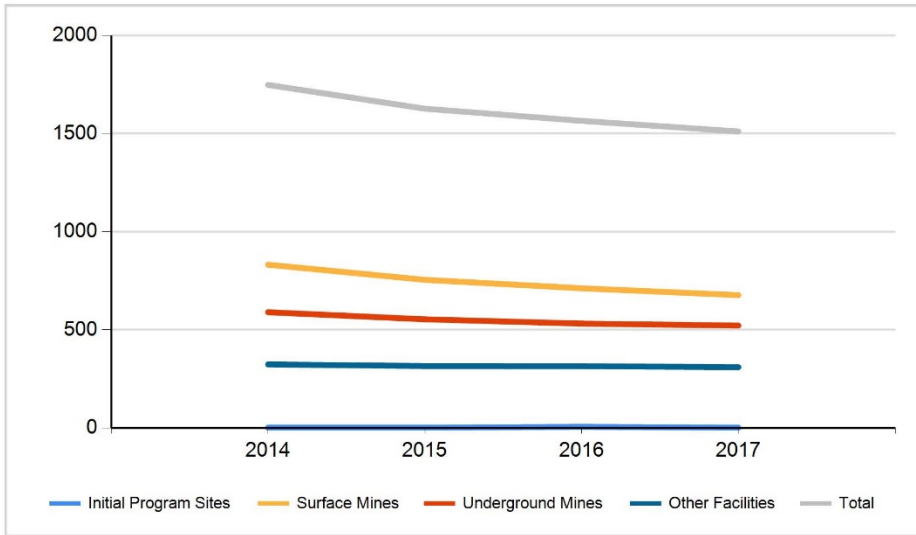


TABLE 2A

NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2014	2	832	590	324	1748
2015	2	755	554	316	1627
2016	6	712	532	315	1565
2017	2	677	522	310	1511

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

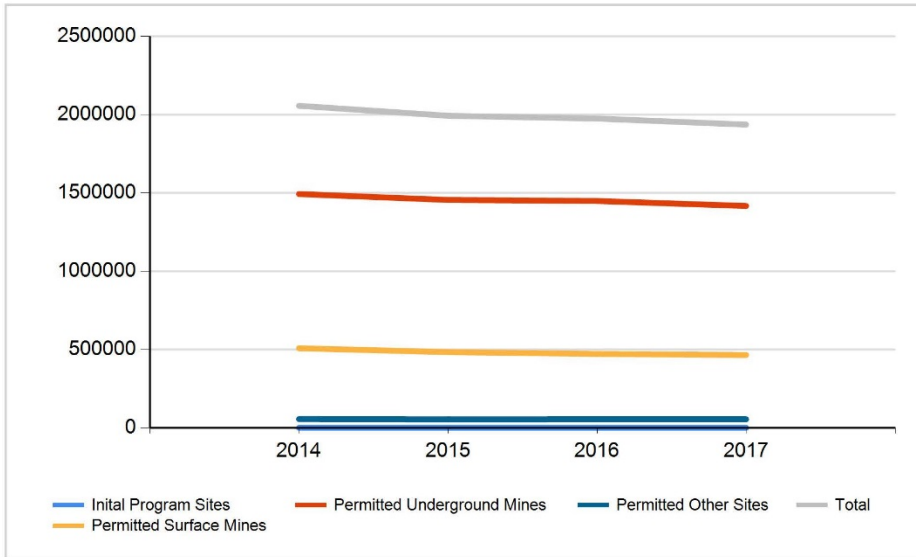


TABLE 2B

AREA OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2014	9.0	507967.0	1492203.0	55413.0	2055592.0
2015	9.0	482989.0	1454815.0	54092.0	1991905.0
2016	9.0	471798.0	1447839.0	54580.0	1974226.0
2017	10.0	464753.0	1416248.0	54448.0	1935459.0

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	4
Mountaintop Removal Mining	785.14(c)(5)	1	26
Steep Slope Mining	785.15(e)	0	91
AOC Variances for Steep Slope Mining	785.16(b)(2)	0	77
Prime Farmlands Historically Used for Cropland	785.17(e)	0	72
Contemporaneous Reclamation Variances	785.18(c)(9)	0	118
Mining on or Adjacent to Alluvial Valley Floors	785.19(e)(2)	0	0
Auger Mining	785.20(c)	5	569
Coal Preparation Plants Not Located at a Mine Site	785.21(c)	1	148
In-Situ Processing	785.22(c)	0	0
Remining	773.15(m) and 785.25	2	284
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**

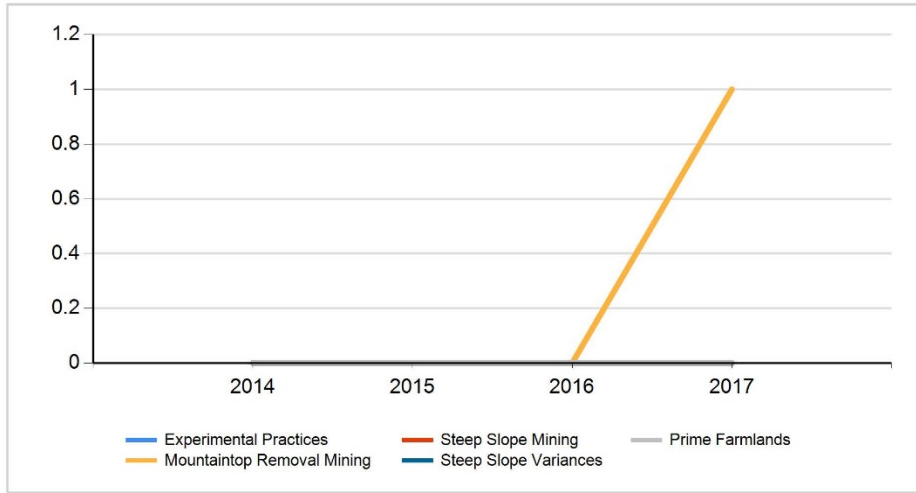


TABLE 3A

NUMBER OF PERMITS ISSUED AND REVISIONS APPROVED					
Year	Experimental Practices	Mountaintop Removal Mining	Steep Slope Mining	Steep Slope Variances	Prime Farmlands
2014	0	0	0	0	0
2015	0	0	0	0	0
2016	0	0	0	0	0
2017	0	1	0	0	0

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

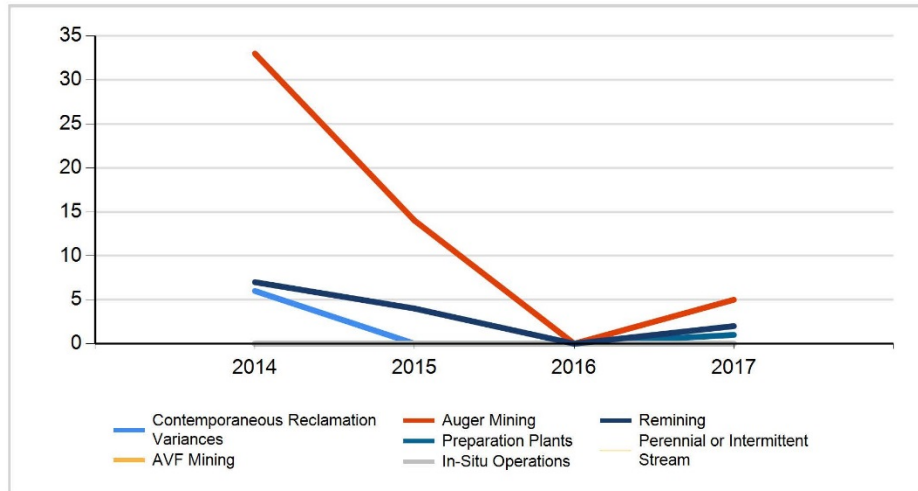


TABLE 3B

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
2014	6	0	33	0	0	7	0
2015	0	0	14	0	0	4	0
2016	0	0	0	0	0	0	0
2017	0	0	5	1	0	2	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	13	5	1,800	2	7	9,735	5	5	549	20	17	12,084
Renewals	77	65		88	70		54	47		219	182	
Transfers, sales, and assignments of permit rights	24	57		54	74		20	31		98	162	
Small operator assistance	0	2		0	0		0	0		0	2	
Exploration permits										0	0	
Exploration notices ²											61	
Revisions that do not add acreage to the permit area	22	22		8	2		1	3		31	27	
Revisions that add acreage to the permit area but are not incidental boundary revisions	42	37	3,386	21	27	3,906	5	11	312	68	75	7,604
Incidental boundary revisions	131	115	172	64	61	25	33	20	2	228	196	199
Totals	309	303	5,358	237	241	13,666	118	117	863	664	722	19,887
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:	8,282.0	
Permits in temporary cessation							Notices received:	181		Terminations:	26	
Midterm permit reviews completed							Number:	384				
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.												

**CHART 4A HISTORICAL TRENDS
 NEW PERMITS ISSUED**

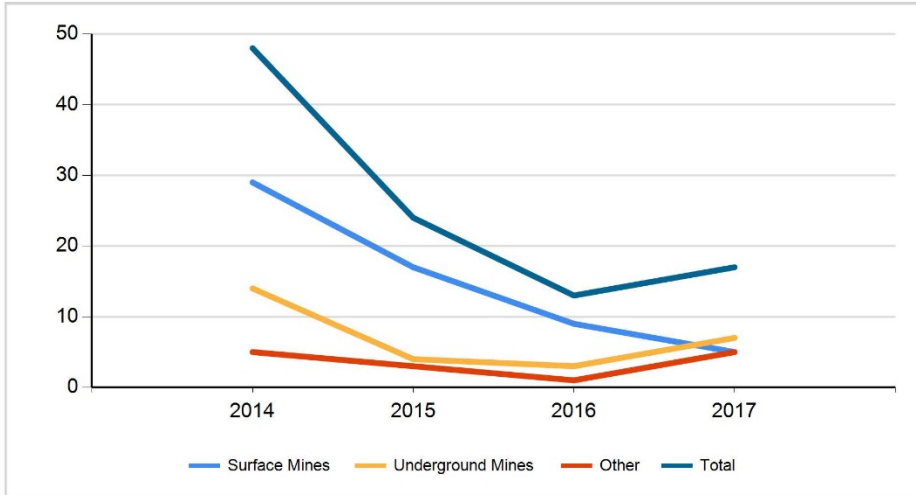


TABLE 4A

NEW PERMITS ISSUED				
Year	Surface Mines	Underground Mines	Other	Total
2014	29	14	5	48
2015	17	4	3	24
2016	9	3	1	13
2017	5	7	5	17

**CHART 4B HISTORICAL TRENDS
 NEW ACREAGE PERMITTED**

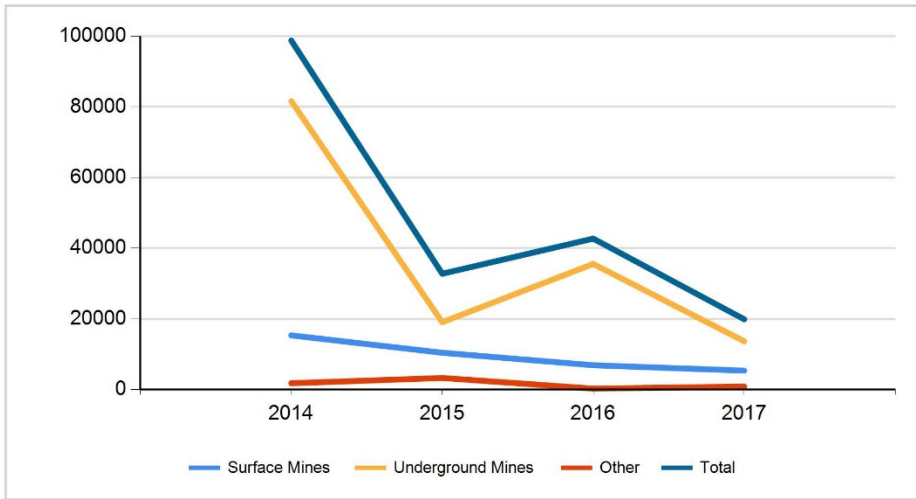


TABLE 4B

NEW ACREAGE PERMITTED				
Year	Surface Mines	Underground Mines	Other	Total
2014	15340.0	81634.0	1794.0	98768.0
2015	10422.0	19065.0	3287.0	32774.0
2016	6889.0	35557.0	277.0	42723.0
2017	5358.0	13666.0	863.0	19887.0

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	1	0	0	0	0	0	0	0	0	0	1	0	0	
Land Stability	72	0	0	0	64	2	0	3	0	1	2	0	0	
Hydrology	124	0	0	0	2	0	0	118	1	2	0	0	1	
Encroachment	47	0	0	0	34	5	8	0	0	0	0	0	0	
Other	12	0	0	0	4	0	0	1	1	0	6	0	0	
Total	256	0	0	0	104	7	8	122	2	3	9	0	1	
Total Number of Inspectable Units ¹ :				1476										
Inspectable Units with one or more off-site impacts:				153										
Exploration Inspectable Units with one or more off-site impacts ² :				0										
Inspectable Units free of off-site impacts:				1323										
										% of Inspectable Units free of off-site impacts ⁴ :				90
¹ Total number of Inspectable Units is (1) the number of active and inactive inspectable units at the end of the Evaluation Year and (2) the number of Inspectable Units that were final bond released or removed during the Evaluation Year														
² Exploration Inspectable Units with one or more off-site impacts is a subset of Inspectable Units with one or more off-site impacts														
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	113	0	0	0	40	24	49	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	113	0	0	0	40	24	49	0	0	0	0	0	0	
Total Number of Inspectable Units ³ :				125										
Inspectable Units with one or more off-site impacts:				113										
Inspectable Units free of off-site impacts:				12										
										% of Inspectable Units free of off-site impacts ⁴ :				10
³ Total number of Inspectable Units is (1) the number of bond forfeiture sites that were reclaimed during the Evaluation Year and (2) the number of bond forfeiture sites that were unreclaimed at the end of the Evaluation Year														

**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	1	0	0	0	0	0	0	0	0	0	1	0	0
Land Stability	185	0	0	0	104	26	49	3	0	1	2	0	0
Hydrology	124	0	0	0	2	0	0	118	1	2	0	0	1
Encroachment	47	0	0	0	34	5	8	0	0	0	0	0	0
Other	12	0	0	0	4	0	0	1	1	0	6	0	0
Total	369	0	0	0	144	31	57	122	2	3	9	0	1
Total Number of Inspectable Units ⁵ :				1601									
Inspectable Units with one or more off-site impacts:				266									
Exploration Inspectable Units with one or more off-site impacts:				0									
Inspectable Units free of off-site impacts:				1335									
										% of Inspectable Units free of off-site impacts ⁴ :		83	
⁴ % of Inspectable Units free of off-site impacts is based on the number of Inspectable Units during the Evaluation Year. The number of Inspectable Units may vary during the Evaluation Year.													
⁵ Total number of Inspectable Units is (1) the number of active and inactive Inspectable Units at the end of the Evaluation Year and (2) the number of Inspectable Units that were final bond released or 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 at the end of the Evaluation Year.													

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

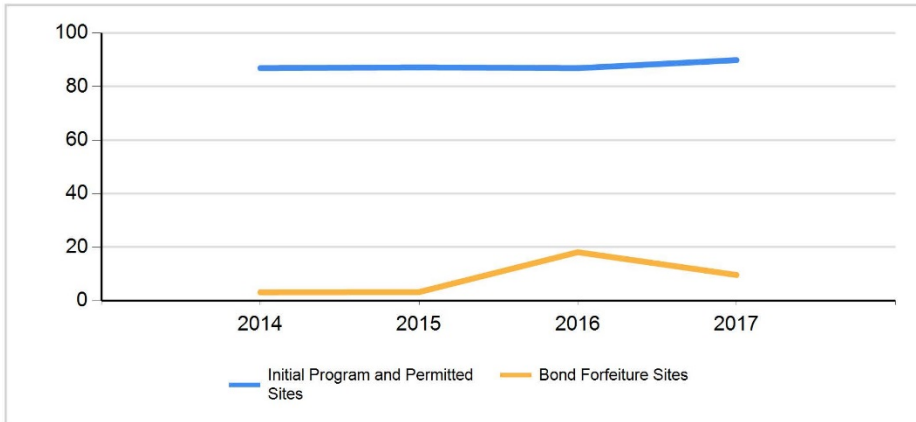


TABLE 5A

PERCENT OF INSPECTABLE UNITS FREE OF OFF-SITE IMPACTS		
Year	Initial Program and Permanent Program Permits	Bond Forfeiture Sites
2014	86.9	3.1
2015	87.1	3.2
2016	86.5	18.1
2017	89.6	9.6

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 Total Acres Released in Approved 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		
21,746		9,915			24	Phase I	31,685
	10,478			24		Phase II	10,502
			8,282			Phase III	8,282
Number of Permanent Program Permits with Jurisdiction Terminated Under Phase III Bond Release During the Evaluation Year					59	Other Releases - Acres	
Initial Program Sites with Jurisdiction Terminated During the Evaluation Year					0	Administrative Adjustments	11800
Number of Inspectable Units Removed					75	Bond Forfeiture	33698
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			26,399
Total Area Bonded for Disturbance	223,199	228,580	5,381
Area Bonded for Disturbance without Phase I Bond Release	219,474	207,525	(11,949)
Area Bonded for Disturbance for which Phase I Bond Release Has Been Approved	31,983	33,271	1,288
Area Bonded for Disturbance for which Phase II Bond Release Has Been Approved	6,635	8,802	2,167
Area Bonded for Disturbance with Bonds Forfeited During Evaluation Year			936
Area Bonded for Remining	0	0	0
Areas of Permits Disturbed by Surface Coal Mining and Reclamation Operations			
Disturbed Area	224,119	221,061	N/A

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

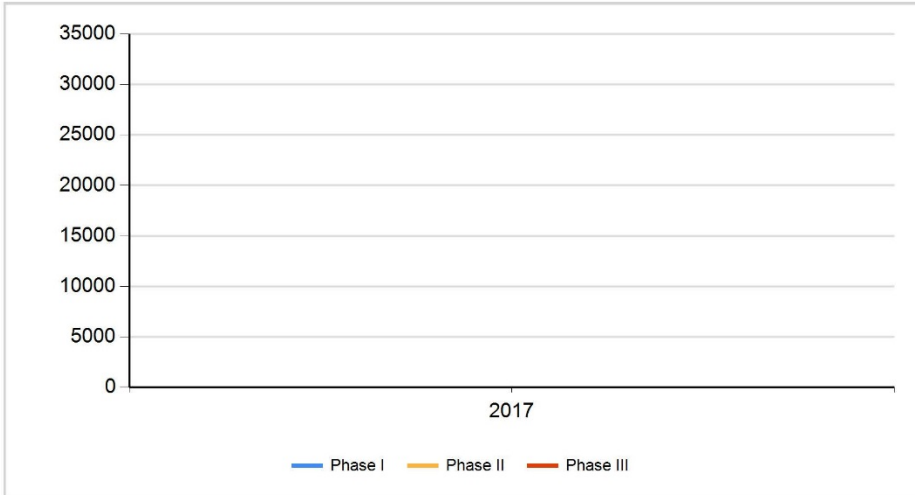


TABLE 6A

ACRES OF PHASE I, II, AND III BOND RELEASES			
Year	Phase III	Phase II	Phase I
2017	8282	10502	31685

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

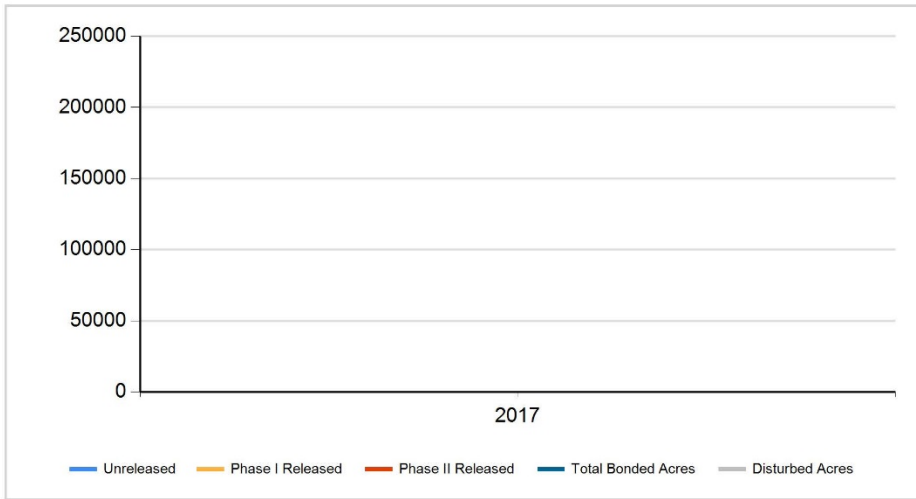


TABLE 6B

AREAS BONDED FOR DISTURBANCE AND DISTURBED AREA					
Year	ACRES BONDED FOR DISTURBANCE				Disturbed Area
	Unreleased	Phase I Released	Phase II Released	Total Bonded Area	
2017	152975.0	33271.0	8802	228580.0	221061.0

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	118		3,776
Sites with bonds forfeited and collected during the current Evaluation Year	7	3,000,710	936
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		33,698
Sites with bonds forfeited and collected that were un-reclaimed at the end of the current Evaluation Year ¹	110		(28,986)
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	12		202
Sites where surety/other party agreed during the current Evaluation Year to do reclamation	0		0
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	12		202
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**

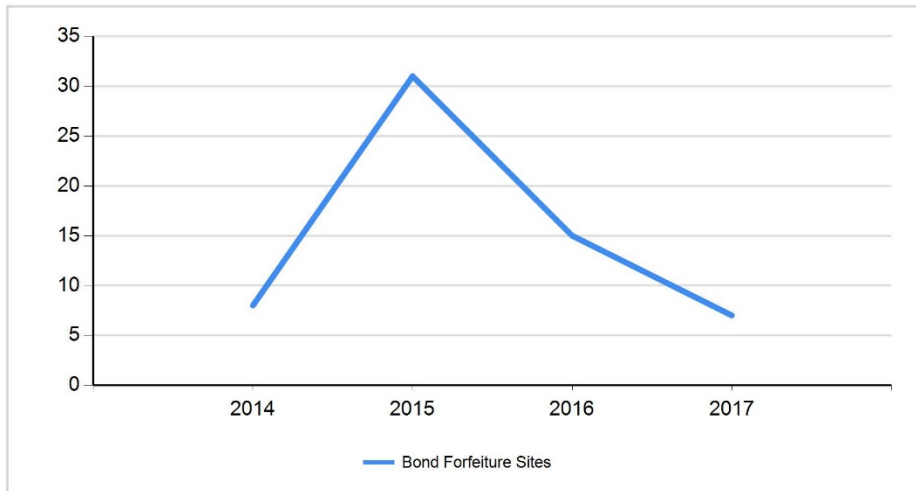


TABLE 7A

NUMBER OF BOND FORFEITURE SITES	
Year	Bond Forfeiture Sites
2014	8
2015	31
2016	15
2017	7

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

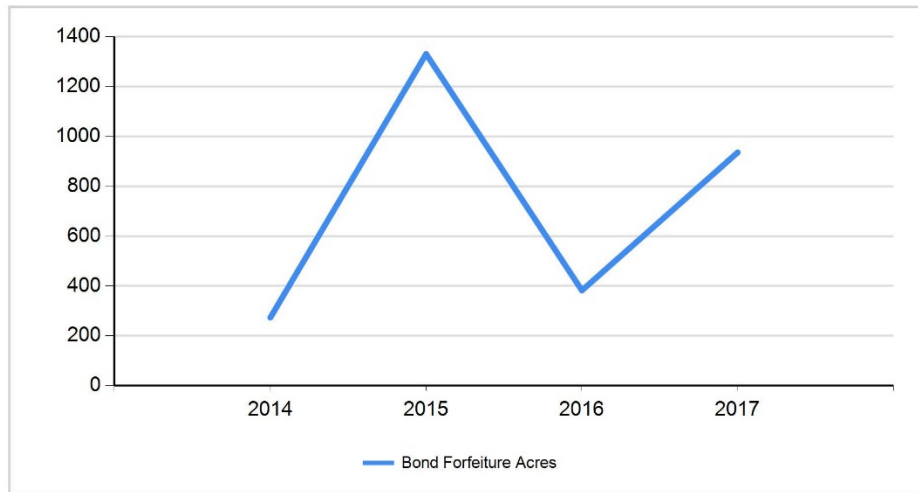


TABLE 7B

ACREAGE OF BOND FORFEITURE SITES	
Year	Acres
2014	273
2015	1331
2016	382
2017	936

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

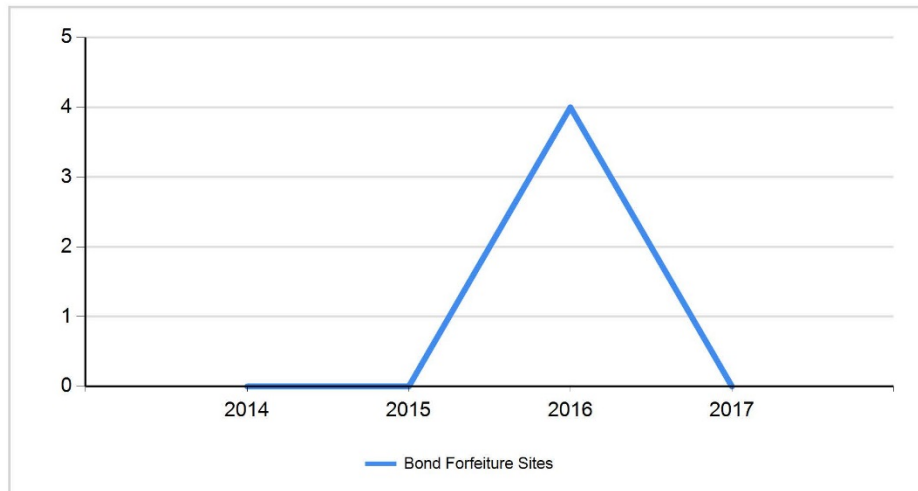


TABLE 7C

NUMBER OF SITES WITH WATER POLLUTION STILL OCCURRING	
Year	Sites
2014	0
2015	0
2016	4
2017	0

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

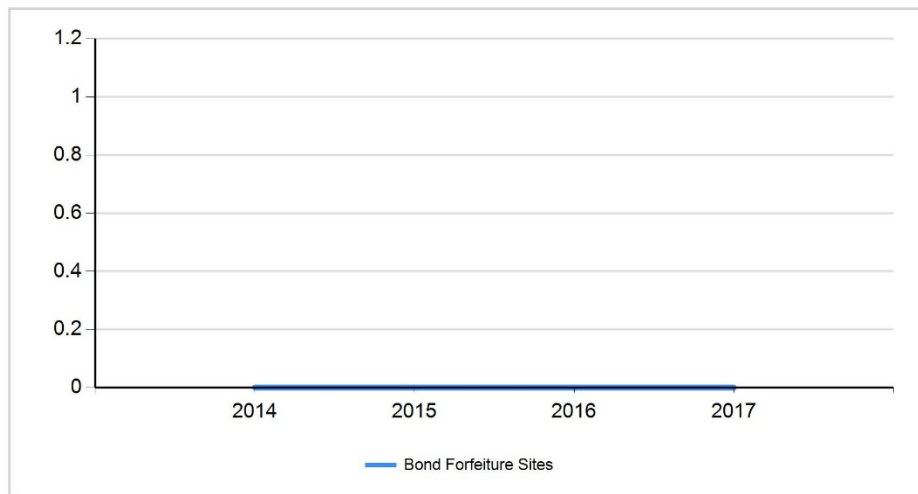


TABLE 7D

NUMBER OF SITES WITH WATER TREATMENT ONGOING	
Year	Sites
2014	0
2015	0
2016	0
2017	0

TABLE 8

REGULATORY AND AML PROGRAMS STAFFING	
Function	Number of FTEs
Regulatory Program	
Permit Review and Maintenance	30.00
Inspection	108.00
Other (supervisory, clerical, administrative, fiscal, personnel, etc.)	42.00
Regulatory Program Total	180.00
AML Program Total	81.00
TOTAL	261.00

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

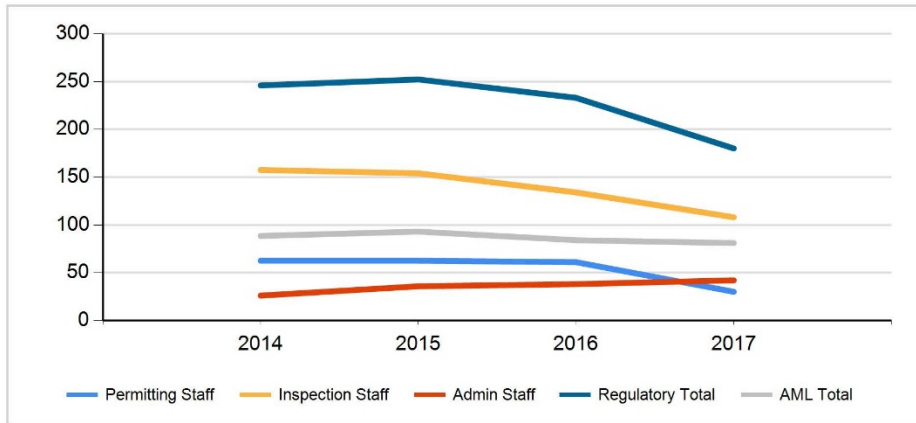


TABLE 8A

REGULATORY AND AML PROGRAMS STAFFING					
Year	Regulatory Program				AML Program
	Permitting	Inspection	Admin	Total	
2014	63	157	26	246	88
2015	63	154	36	252	93
2016	61	134	38	233	84
2017	30	108	42	180	81

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	11,632,000		
Other Regulatory Funding, if applicable	0		
Subtotal (Regulatory Funding)	11,632,000	21,822,199	53
Small Operator Assistance Program Grant Funding	0	0	
Abandoned Mine Land Reclamation Funding	17,088,577	17,088,577	100
Watershed Cooperative Agreement Program	0	0	
TOTAL	28,720,577		

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

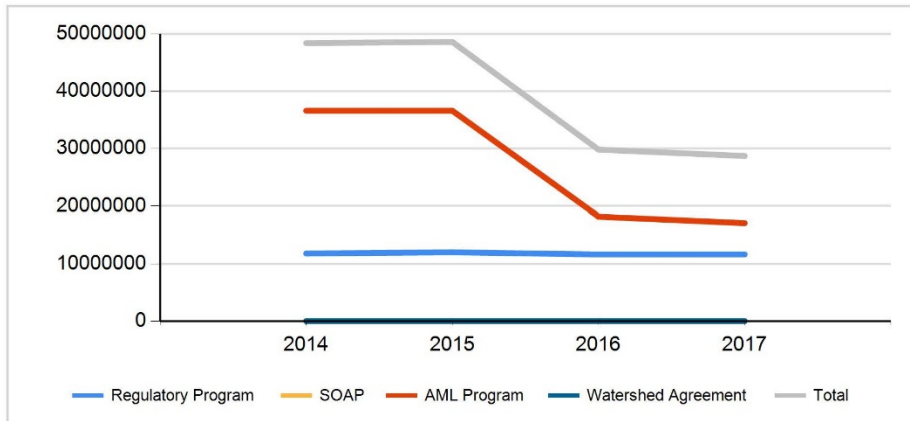


TABLE 9A

FUNDS GRANTED TO STATE OR TRIBE BY OSM				
Year	Regulatory Program	SOAP	AML Program	Total
2014	11,798,237	0	36,613,301	48,411,538
2015	12,000,854	0	36,613,301	48,614,155
2016	11,631,247	0	18,201,399	29,832,646
2017	11,632,000	0	17,088,577	28,720,577

TABLE 10

**STATE INSPECTION ACTIVITY
INSPECTABLE UNITS FOR WHICH STATE MET REQUIRED INSPECTION FREQUENCY ON AN
INSPECTABLE UNIT-BY-INSPECTABLE UNIT BASIS ¹**

Inspectable Units (IUs)	Total number of inspectable units ²	Number of inspections required annually		Number of inspections conducted		IUs Met Complete Inspection Frequency Requirement		IUs Met Partial Inspection Frequency Requirement		IUs Met Complete and Partial Inspection Frequency Requirements		
		Complete inspections	Partial inspections	Complete inspections	Partial inspections	Number	Percent	Number	Percent	Total number of IUs	Number that met inspection frequency	Percent
COAL MINES AND FACILITIES												
Active	1455	5820	11640	6275	10103	1454	100	1355	93	1455	1354	93
Inactive	50	200	0	190	61	50	100	50	100	50	50	100
Abandoned	6	6	0	32	21	6	100	6	100	6	6	100
TOTALS ³	1511	6026	11640	6497	10185	1510	100	1411	93	1511	1410	93

Coal Exploration Activities ⁴	Complete Inspections	Partial Inspections
Exploration sites with permits	0	0
Exploration sites with notices	580	144

¹ Calculated on a site-specific basis.

² Total number includes both permanent program permits and initial program sites.

³ OSM is assuming that all states have gone through the process described in 30 CFR 840.11(h) and 842.11(f) to reduce inspection frequency on abandoned/forfeited sites

⁴ 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.

⁵ NA - Not Available

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

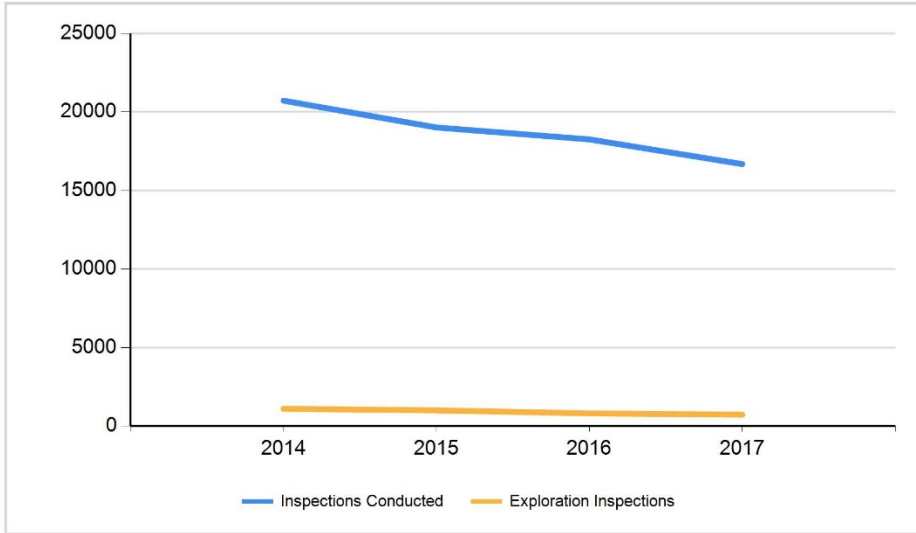


TABLE 10A

STATE OR TRIBAL INSPECTION ACTIVITY		
Year	Inspections Conducted	Exploration Inspections
2014	20722	1097
2015	19013	998
2016	18253	802
2017	16682	724

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	Number of Actions ¹	Number of Violations ¹
Notice of Violation	796	1,335
Failure-to-Abate Cessation Order	167	275
Imminent Harm Cessation Order	7	9

¹ Does not include actions and violations that were vacated.

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

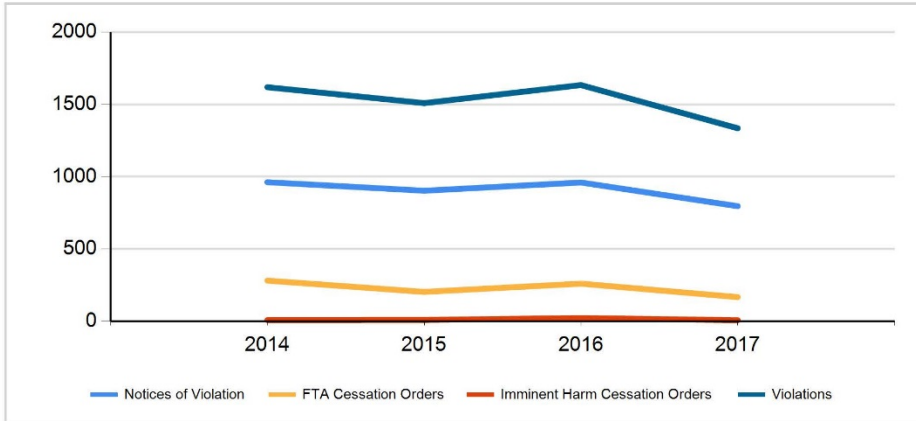


TABLE 11A

STATE OR TRIBAL ENFORCEMENT ACTIVITY				
Year	Notices of Violation	Violations	FTA Cessation Orders	Imminent Harm Cessation Orders
2014	962	1619	281	8
2015	903	1509	203	9
2016	960	1634	260	22
2017	796	1335	167	7

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**

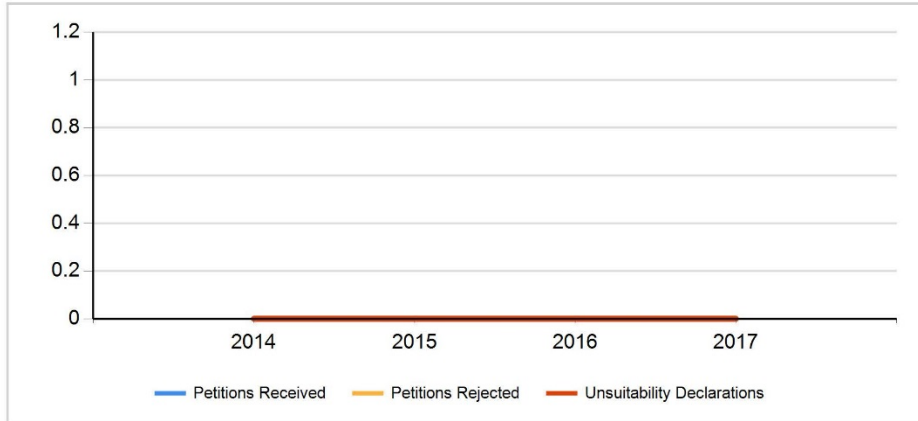


TABLE 12A

LANDS UNSUITABLE ACTIVITY			
Year	Petitions Received	Petitions Rejected	Unsuitability Declarations
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0

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

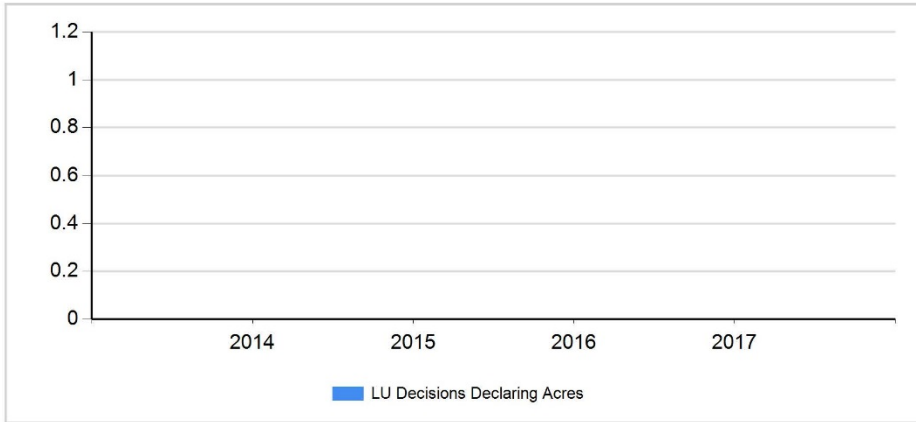


TABLE 12B

ACRES DECLARED UNSUITABLE	
Year	Acres Declared Unsuitable
2014	0.0
2015	0.0
2016	0.0
2017	0.0

TABLE 13

OSM OVERSIGHT ACTIVITY					
Oversight Inspections and Site Visits					
	Complete		Partial		
	Joint	Non-Joint	Joint	Non-Joint	Total
Oversight Inspections	234	0	120	7	361
	Technical Assistance		Other		Total
Site Visits	0		5		5
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?					299
Of the violations observed, how many did OSM defer to State action during inspections?					134
Of the violations observed, how many did OSM refer to the State through Ten-Day Notices? ²					16
How many Ten-Day Notices did OSM Issue for observed violations? ³					9
How many Ten-Day Notices did OSM issue to refer citizen requests for inspection?					3
How many Notices of Violation did OSM issue?					0
How many Failure-to-Abate Cessation Orders did OSM issue?					0
How many Imminent Harm Cessation Orders did OSM issue?					0
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?					4
How many Federal Failure-to-Abate Cessation Orders for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?					2
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**

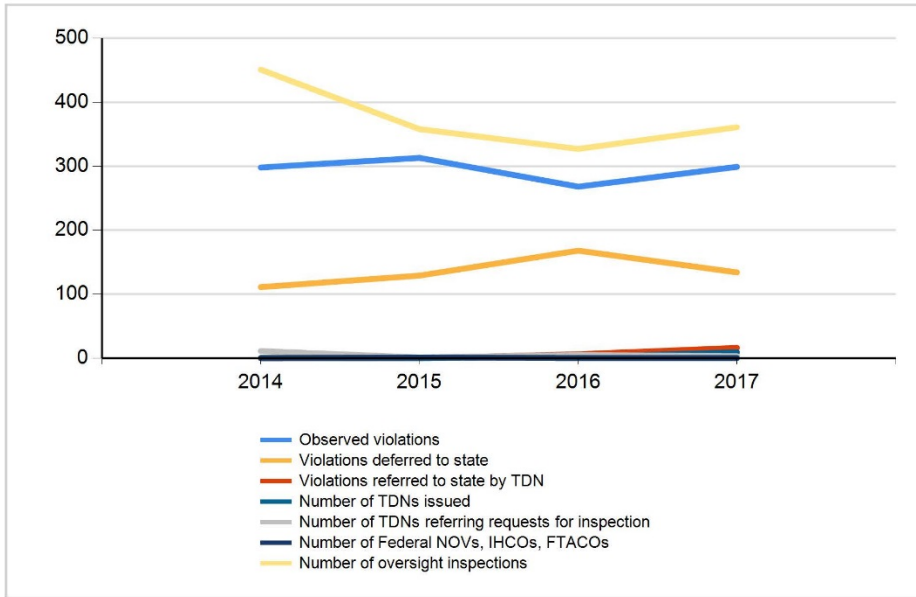


TABLE 13A

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
2014	298	111	0	0	11	0	451
2015	313	129	0	0	1	1	358
2016	268	168	6	2	5	0	327
2017	299	134	16	9	3	0	361

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
None						

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	0.00
Pasture/Hayland	2,012.54
Grazingland	0.00
Forestry	542.00
Residential	5.11
Industrial/Commercial	136.88
Recreation	0.00
Fish & Wildlife Habitat	5,539.80
Developed Water Resources	0.00
Undeveloped land or no current use or land management	0.00
Other - Public Utilities	0.00
Other - Unidentified	46.04
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Sub-Total Other	46.04
Total	8,282.37

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**

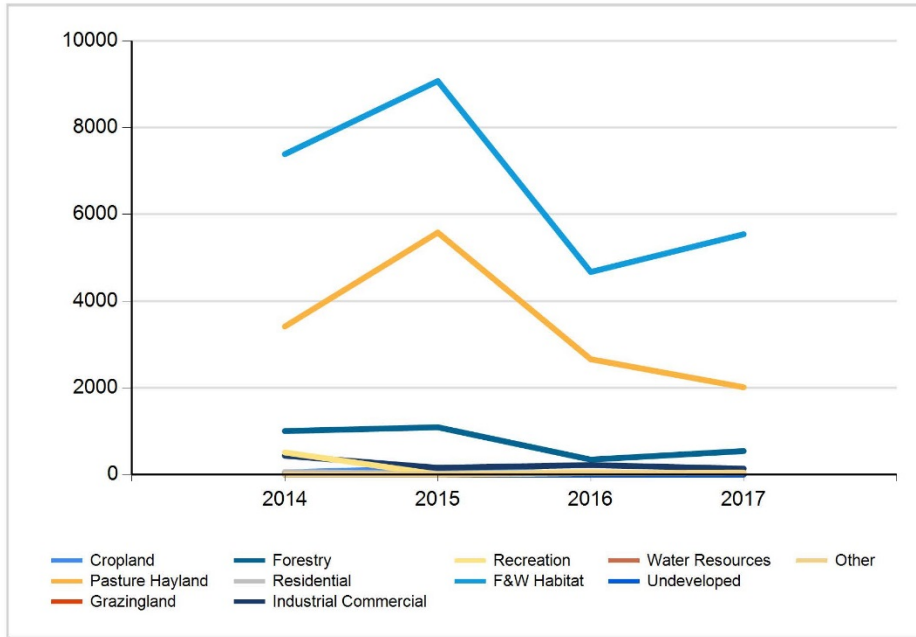


TABLE 15A

POST MINING LAND USE ACREAGES											
Year	Cropland	Pasture Hay	Grazing Land	Forest	Residential	Industrial Comm.	Recreation	F&W Hab.	Water Resources	Undeveloped	Other
2014	53	3413	4	1003	57	435	510	7386	0	0	0
2015	144	5579	0	1091	22	157	4	9071	0	0	0
2016	0	2659	0	346	54	219	59	4671	0	0	34
2017	0	2013	0	542	5	137	0	5540	0	0	46

XII. Appendix 2 State Comments on the Report

MATTHEW G. BEVIN
GOVERNOR



ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR NATURAL RESOURCES

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

CHARLES G. SNAVELY
SECRETARY

ALLEN LUTTRELL
COMMISSIONER

September 18, 2017

Mr. Robert Evans, Director
Lexington Field Office
Office of Surface Mining Reclamation and Enforcement
2675 Regency Road
Lexington, Kentucky 40503-2922

Dear Mr. Evans:

The Department for Natural Resources offers the following comments regarding the draft Evaluation Year 2017 Annual Report:

Page 9, Bond Forfeiture Report: Please refer to this report as "draft," as DNR is still compiling comments on this report before finalization. Also it should be noted that the KYAML's cost estimates are preliminary cost estimates.

Pages 15, 4th paragraph: Please change "through decreasing time" to "since 1985."

Pages 19, 2nd paragraph: Please insert an additional bullet after the first bullet to state-"As a result of a more robust review of contemporaneous reclamation variance requests, 157,000 feet of potential highwall was found not to be justified."

Page 25, 2nd paragraph: In the d third paragraph, 297 CRI's is correctly stated. With the 55 complaints unresolved as stated in the second paragraph, the total number of complaints investigated should read 352, rather than 355.

Pages 38, 3. Bond Forfeiture Report: same comments as given above for Page 9.

Page 45, 3rd paragraph- Please add to the end of the second sentence "...unless the permittee opts for full cost bonding."

Page 56, 4. AML Grant Fiscal and Administrative Reviews, 2nd paragraph: The first sentence should be revised to "A single audit conducted by the Kentucky Auditor of Public Accounts in 2012 identified an issue...."

I appreciate the opportunity to comment on the EY 2017 draft Annual Report. If you have any questions, please do not hesitate to contact my office or contact Richard J. Wahrer at (502) 782-6799

Sincerely,

A handwritten signature in blue ink that reads "John D. Small for A.L.".

Allen Luttrell
Commissioner

c: John Small
Jeff Baird
Courtney Skaggs
Bob Scott
Richard Wahrer

XIII. Appendix 3 State Non-Compliance Data (Listed by Descending Number of Non-Compliances)

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
REVELATION ENERGY LLC	271	460	155	242	341,303.30	47,914.34
IKERD MINING, LLC	29	43	5	5	1,265.86	581.97
PREMIER ELKHORN COAL LLC	24	33	17	37	52,648.11	9,530.34
LIBERTY MANAGEMENT LLC	22	40	17	38	26,488.54	13,776.89
APEX ENERGY INC	18	32	11	29	18,345.18	4,002.70
SPURLOCK MINING, LLC	13	38	7	35	29,173.12	1,015.40
ALDEN RESOURCES LLC	13	14	9	24	12,249.14	1,551.89
CAMBRIAN COAL LLC	12	27	7	16	6,477.93	3,579.50
VIKING ACQUISITION GROUP LLC	12	13	3	3	903.56	225.86
B & W RESOURCES INC	11	13	10	31	11,525.95	4,600.01
PATRIOT COAL COMPANY, LP	11	11	10	2	945.82	870.00
STRAIGHT CREEK COAL MINING INC	10	20	6			
EMBER ENERGY LLC	9	15	6	19	13,487.71	5,523.89
KENTUCKY FUEL CORPORATION	9	14	8	38	53,348.95	5,988.61
NALLY & HAMILTON ENTERPRISES INC	9	11	8	59	42,596.69	14,117.22
ACPKY I LLC	8	16	2	2	176.42	36.00
MATT/CO INC	8	12	6	22	16,536.90	430.03
J R MINING INC	8	8	2	2	120.23	51.00
LCC KENTUCKY LLC	8	8	4	11	5,832.58	3,101.72
EMPIRE COAL PROCESSING LLC	7	19	2	2	366.15	69.00
M J K MINING INCORPORATED	7	13	2	3	365.91	134.50
IKERD TERMINAL COMPANY, LLC	7	8	1	1	10.70	8.00
LANDFALL MINING INCORPORATED	6	17	3	3	117.60	60.00
SEQUOIA ENERGY LLC	6	8	6	12	22,964.14	953.38
COAL OPERATORS I LLC	6	6	2	2	421.36	269.00
FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	6	6	5	15	35,938.40	799.40
METELECTRIC ENERGY LLC	5	19	1	1	636.95	250.00
PINE BRANCH MINING, LLC	5	17	4	13	8,596.27	6,024.84
BOWIE REFINED COAL, LLC	5	12	1	1	440.33	440.33
L & R COALS	5	8	1	1	43.20	5.00
DDB ENERGY RESOURCES LLC	5	7	3	3	4,437.15	144.55
IBCS MINING INC KENTUCKY DIVISION	5	7	3	4	523.51	160.00
ARMSTRONG COAL COMPANY INC	5	6	4	25	67,599.83	6,467.20
COOK AND SONS MINING INC	5	6	2	3	2,076.59	494.33
JMEG MINE LLC	5	6	2	2	93.52	60.00
KENAMERICAN RESOURCES INC	5	6	3	4	25,369.29	394.80
T & T ENERGY, LLC	5	5	3	3	852.26	505.00
INFINITY ENERGY, INC	4	15	2	3	1,099.71	450.25
MEADOW FORK MINING CO LLC	4	12	1	1	427.98	300.00
ADAMS & BURKE CONTRACTORS & DEVELOPERS LLC	4	11	1	1	112.94	69.00
FOUR STAR RESOURCES LLC	4	10	4	4	863.15	189.22
BETHEL COAL COMPANY, INC	4	9	1	1	85.90	35.00
ICG HAZARD LLC	4	6	4	24	23,932.66	11,633.92
CORBIN MINING LLC	4	5	1	1	330.15	60.00
OXFORD MINING COMPANY-KENTUCKY LLC	4	5	2	7	5,795.60	2,593.13

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
BIG K PROCESSING, INC	4	4	1	1	3.62	3.62
CLAY LAUREL MINING INC	4	4	2	2	74.87	29.00
ELY FUEL COMPANY	4	4	1			
SANDLICK COAL COMPANY LLC	4	4	2			
APPALACHIAN MINING AND RECLAMATION LLC	3	11	2	2	757.13	82.15
GULF STREAM ENERGY LLC	3	6	1			
LOCUST GROVE INC	3	6	2	10	4,768.36	1,773.28
HARLAN RECLAMATION SERVICES LLC	3	5	1	14	7,030.59	1,758.12
MOUNTAINSIDE COAL CO INC	3	5	2	8	3,649.52	1,055.70
SIDNEY COAL COMPANY INC	3	5	3	31	81,495.64	1,931.42
LAUREL MOUNTAIN RESOURCES LLC	3	4	2			
RAVEN ENERGY INC	3	4	1	1	264.12	105.00
APPALACHIAN MINING LLC	3	3	1			
CLINTWOOD ELKHORN MINING LLC	3	3	2	40	43,143.02	1,821.73
EVANS COAL CORP	3	3	3	6	2,004.06	630.70
G & G MINES LLC	3	3	1	1	32.80	20.00
KNOTT COUNTY COAL, LLC	3	3	3	12	24,289.08	1,038.24
MIDDLESBORO MINING OPERATIONS INC	3	3	3	27	15,426.58	2,997.33
RIO MINING LLC	3	3	1	1	87.51	17.50
STURGEON MINING COMPANY INC	3	3	2	6	2,204.26	979.04
TRITON ENERGY COAL INC	3	3	1	1	10.43	6.00
PHOENIX RESOURCES, LLC	2	13	1	1	154.68	130.00
CAM MINING LLC	2	10	1	19	30,746.42	1,974.49
A & G COAL CORPORATION	2	9	1	1	690.55	230.00
CAMBRIAN COAL CORPORATION	2	4	2	1	301.20	272.00
DAVIS ENERGY, LLC	2	4	1	4	718.04	258.00
DEANE MINING LLC	2	4	2	17	25,119.28	2,013.65
MINE RITE COAL CO INC	2	4	2	2	633.26	435.00
CZAR COAL CORPORATION	2	3	2	18	29,612.04	3,806.57
GENESIS GROUP LLC	2	3	1	1	43.59	8.00
MIDDLE FORK DEVELOPMENT SERVICES NO 2 LLC	2	3	2	2	498.21	345.00
MOUNTAIN RECLAMATION AND CONSTRUCTION LLC	2	3	1	1	127.05	20.00
ROAD FORK DEVELOPMENT COMPANY INC	2	3	2	9	20,440.59	888.28
ROCKHAMPTON ENERGY LLC	2	3	1	2	3,307.56	44.40
SEBREE MINING LLC	2	3	2	6	30,076.15	582.10
THE LITTLE KENTUCKY ELK LLC	2	3	1	1	800.19	6.00
BEECH FORK PROCESSING INC	2	2	2	3	3,758.66	92.00
CARBONADO MINE 3 LLC	2	2	1	1	283.30	100.00
CHEYENNE RESOURCES INC	2	2	2	3	444.73	444.23
HEI SERVICES LLC	2	2	1	1	70.55	3.00
ICG KNOTT COUNTY LLC	2	2	2	8	6,035.17	245.00
MASON COAL INC	2	2	1	3	3,405.30	17.08
OWENSBORO RIVER SAND AND GRAVEL COMPANY	2	2	1	1	16.40	9.10
ROUGH CREEK MINING LLC	2	2	2	5	47,099.97	606.30

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
T & T COAL INC	2	2	2	3	181.31	98.00
WEBSTER COUNTY COAL LLC	2	2	2	8	65,050.32	614.60
WESTERN KENTUCKY MINERALS, INC	2	2	2	4	1,707.70	1,047.00
EASTERN KENTUCKY MINING INC	1	12	1	1	329.93	90.74
SOUTHEASTERN LAND, LLC	1	4	1	6	9,252.24	194.73
HARLAN-CUMBERLAND COAL COMPANY LLC	1	3	1	5	13,985.78	559.15
MC MINING LLC	1	3	1	3	12,247.60	48.00
RIVER VIEW COAL, LLC	1	3	1	3	30,946.74	806.27
XCELL ENERGY AND COAL COMPANY, LLC	1	3	1			
BEECH CREEK COAL COMPANY, LLC	1	2	1	1	1,133.85	195.00
BEECH FORK PROCESSING, LLC	1	2	1	13	11,544.23	2,643.88
COVOL FUELS NO 3 LLC	1	2	1	9	4,038.33	436.85
CROCKETT COLLIERIES (KY) INC	1	2	1	3	1,388.51	68.11
DOUBLE BRANCH ENERGY LLC	1	2	1	6	5,198.51	180.80
DUSTY DIAMOND COMPANY INC	1	2	1	1	2,000.31	220.00
E & J CORPORATION INC	1	2	1	1	5.50	5.50
HOPKINS COUNTY COAL LLC	1	2	1	15	23,636.54	5,635.35
KAMCO LLC	1	2	1	4	551.00	133.00
MONTANA BAKKEN LLC	1	2	1	5	3,066.58	259.41
VIRGINIA FUEL CORPORATION	1	2	1	14	17,623.81	991.91
WELLMORE COAL CORPORATION DBA THE BLACK DIAMOND CO	1	2	1	14	15,224.75	481.00
IST CAPITAL ENERGY AND COAL LLC	1	1	1	1	91.79	18.00
BLEDSOE COAL CORPORATION	1	1	1			
BLUE DIAMOND MINING, LLC	1	1	1	47	82,046.05	4,786.24
BLUEBRIDGE MINING GROUP LLC	1	1	1			
CENTURIAN OF PIKEVILLE INC	1	1	1	1	24.50	3.00
CHEYENNE MINING, INC	1	1	1	6	4,666.13	185.89
COVENANT COAL CORPORATION INC	1	1	1	1	780.96	19.00
CUZ COAL COMPANY LLC	1	1	1	1	1,075.19	220.00
D & J COAL COMPANY LLC	1	1	1	3	1,990.92	835.00
DEAN COAL & STONE, LLC	1	1	1	1	55.90	12.00
DENHAM & LEWIS PROCESSING INC	1	1	1	1	5.00	5.00
ERP ENVIRONMENTAL FUND INC	1	1	1	14	23,244.07	3,854.40
FM ENERGY LLC	1	1	1	1	203.92	4.50
HENDRICKS CORBIN LLC	1	1	1	1	470.50	469.50
HIGH RIDGE MINING LLC	1	1	1	5	2,723.71	408.34
JCI MINING LLC	1	1	1	1	629.82	9.00
KYZ ENERGY, LLC	1	1	1	1	865.50	8.25
LANDMARK MINING COMPANY INC	1	1	1	18	9,566.14	230.01
MARTIN COUNTY COAL CORPORATION	1	1	1	14	12,547.18	3,141.91
NOBLE CONSTRUCTION	1	1	1	2	168.15	53.00
PENNYRILE ENERGY LLC	1	1	1	1	10,869.60	175.00
PRAIRIE DOCK COMPANY LLC	1	1	1			
RED ROCK ENTERPRISES INC	1	1	1	1	6.10	6.10
SMITH COAL PROCESSING	1	1	1	1	10.90	10.00

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
SOUTHBOUND COAL, LLC	1	1	1	2	857.29	55.00
SOUTHFORK COAL CO	1	1	1	4	3,193.21	160.34
STAFLAND ENERGY LLC	1	1	1	1	317.36	147.00
STRATA MINING INC	1	1	1	2	3,000.88	462.08
TORCHLIGHT ENERGY, INC	1	1	1	1	122.29	11.00
WARRIOR COAL LLC	1	1	1	8	35,588.28	698.00
WILMAY LAND HOLDINGS INC	1	1	1	1	203.90	20.00

**Appendix 4 State Non-Compliance Data (Listed by Permittee
Alphabetically)**

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
IST CAPITAL ENERGY AND COAL LLC	1	1	1	1	91.79	18.00
A & G COAL CORPORATION	2	9	1	1	690.55	230.00
ACPKY1 LLC	8	16	2	2	176.42	36.00
ADAMS & BURKE CONTRACTORS & DEVELOPERS LLC	4	11	1	1	112.94	69.00
ALDEN RESOURCES LLC	13	14	9	24	12,249.14	1,551.89
APEX ENERGY INC	18	32	11	29	18,345.18	4,002.70
APPALACHIAN MINING AND RECLAMATION LLC	3	11	2	2	757.13	82.15
APPALACHIAN MINING LLC	3	3	1			
ARMSTRONG COAL COMPANY INC	5	6	4	25	67,599.83	6,467.20
B & W RESOURCES INC	11	13	10	31	11,525.95	4,600.01
BEECH CREEK COAL COMPANY, LLC	1	2	1	1	1,133.85	195.00
BEECH FORK PROCESSING INC	2	2	2	3	3,758.66	92.00
BEECH FORK PROCESSING, LLC	1	2	1	13	11,544.23	2,643.88
BETHEL COAL COMPANY, INC	4	9	1	1	85.90	35.00
BIG K PROCESSING, INC	4	4	1	1	3.62	3.62
BLEDSON COAL CORPORATION	1	1	1			
BLUE DIAMOND MINING, LLC	1	1	1	47	82,046.05	4,786.24
BLUEBRIDGE MINING GROUP LLC	1	1	1			
BOWIE REFINED COAL, LLC	5	12	1	1	440.33	440.33
CAM MINING LLC	2	10	1	19	30,746.42	1,974.49
CAMBRIAN COAL CORPORATION	2	4	2	1	301.20	272.00
CAMBRIAN COAL LLC	12	27	7	16	6,477.93	3,579.50
CARBONADO MINE 3 LLC	2	2	1	1	283.30	100.00
CENTURIAN OF PIKEVILLE INC	1	1	1	1	24.50	3.00
CHEYENNE MINING, INC	1	1	1	6	4,666.13	185.89
CHEYENNE RESOURCES INC	2	2	2	3	444.73	444.23
CLAY LAUREL MINING INC	4	4	2	2	74.87	29.00
CLINTWOOD ELKHORN MINING LLC	3	3	2	40	43,143.02	1,821.73
COAL OPERATORS 1 LLC	6	6	2	2	421.36	269.00
COOK AND SONS MINING INC	5	6	2	3	2,076.59	494.33
CORBIN MINING LLC	4	5	1	1	330.15	60.00
COVENANT COAL CORPORATION INC	1	1	1	1	780.96	19.00
COVOL FUELS NO 3 LLC	1	2	1	9	4,038.33	436.85
CROCKETT COLLIERIES (KY) INC	1	2	1	3	1,388.51	68.11
CUZ COAL COMPANY LLC	1	1	1	1	1,075.19	220.00
CZAR COAL CORPORATION	2	3	2	18	29,612.04	3,806.57
D & J COAL COMPANY LLC	1	1	1	3	1,990.92	835.00
DAVIS ENERGY, LLC	2	4	1	4	718.04	258.00
DDB ENERGY RESOURCES LLC	5	7	3	3	4,437.15	144.55
DEAN COAL & STONE, LLC	1	1	1	1	55.90	12.00
DEANE MINING LLC	2	4	2	17	25,119.28	2,013.65
DENHAM & LEWIS PROCESSING INC	1	1	1	1	5.00	5.00
DOUBLE BRANCH ENERGY LLC	1	2	1	6	5,198.51	180.80
DUSTY DIAMOND COMPANY INC	1	2	1	1	2,000.31	220.00
E & J CORPORATION INC	1	2	1	1	5.50	5.50

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
EASTERN KENTUCKY MINING INC	1	12	1	1	329.93	90.74
ELY FUEL COMPANY	4	4	1			
EMBER ENERGY LLC	9	15	6	19	13,487.71	5,523.89
EMPIRE COAL PROCESSING LLC	7	19	2	2	366.15	69.00
ERP ENVIRONMENTAL FUND INC	1	1	1	14	23,244.07	3,854.40
EVANS COAL CORP	3	3	3	6	2,004.06	630.70
FM ENERGY LLC	1	1	1	1	203.92	4.50
FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	6	6	5	15	35,938.40	799.40
FOUR STAR RESOURCES LLC	4	10	4	4	863.15	189.22
G & G MINES LLC	3	3	1	1	32.80	20.00
GENESIS GROUP LLC	2	3	1	1	43.59	8.00
GULF STREAM ENERGY LLC	3	6	1			
HARLAN RECLAMATION SERVICES LLC	3	5	1	14	7,030.59	1,758.12
HARLAN-CUMBERLAND COAL COMPANY LLC	1	3	1	5	13,985.78	559.15
HEI SERVICES LLC	2	2	1	1	70.55	3.00
HENDRICKS CORBIN LLC	1	1	1	1	470.50	469.50
HIGH RIDGE MINING LLC	1	1	1	5	2,723.71	408.34
HOPKINS COUNTY COAL LLC	1	2	1	15	23,636.54	5,635.35
IBCS MINING INC KENTUCKY DIVISION	5	7	3	4	523.51	160.00
ICG HAZARD LLC	4	6	4	24	23,932.66	11,633.92
ICG KNOTT COUNTY LLC	2	2	2	8	6,035.17	245.00
IKERD MINING, LLC	29	43	5	5	1,265.86	581.97
IKERD TERMINAL COMPANY, LLC	7	8	1	1	10.70	8.00
INFINITY ENERGY, INC	4	15	2	3	1,099.71	450.25
J R MINING INC	8	8	2	2	120.23	51.00
JCI MINING LLC	1	1	1	1	629.82	9.00
JMEG MINE LLC	5	6	2	2	93.52	60.00
KAMCO LLC	1	2	1	4	551.00	133.00
KENAMERICAN RESOURCES INC	5	6	3	4	25,369.29	394.80
KENTUCKY FUEL CORPORATION	9	14	8	38	53,348.95	5,988.61
KNOTT COUNTY COAL, LLC	3	3	3	12	24,289.08	1,038.24
KYZ ENERGY, LLC	1	1	1	1	865.50	8.25
L & R COALS	5	8	1	1	43.20	5.00
LANDFALL MINING INCORPORATED	6	17	3	3	117.60	60.00
LANDMARK MINING COMPANY INC	1	1	1	18	9,566.14	230.01
LAUREL MOUNTAIN RESOURCES LLC	3	4	2			
LCC KENTUCKY LLC	8	8	4	11	5,832.58	3,101.72
LIBERTY MANAGEMENT LLC	22	40	17	38	26,488.54	13,776.89
LOCUST GROVE INC	3	6	2	10	4,768.36	1,773.28
M J K MINING INCORPORATED	7	13	2	3	365.91	134.50
MARTIN COUNTY COAL CORPORATION	1	1	1	14	12,547.18	3,141.91
MASON COAL INC	2	2	1	3	3,405.30	17.08
MATT/CO INC	8	12	6	22	16,536.90	430.03
MC MINING LLC	1	3	1	3	12,247.60	48.00
MEADOW FORK MINING CO LLC	4	12	1	1	427.98	300.00

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
METELECTRIC ENERGY LLC	5	19	1	1	636.95	250.00
MIDDLE FORK DEVELOPMENT SERVICES NO 2 LLC	2	3	2	2	498.21	345.00
MIDDLESBORO MINING OPERATIONS INC	3	3	3	27	15,426.58	2,997.33
MINE RITE COAL CO INC	2	4	2	2	633.26	435.00
MONTANA BAKKEN LLC	1	2	1	5	3,066.58	259.41
MOUNTAIN RECLAMATION AND CONSTRUCTION LLC	2	3	1	1	127.05	20.00
MOUNTAINSIDE COAL CO INC	3	5	2	8	3,649.52	1,055.70
NALLY & HAMILTON ENTERPRISES INC	9	11	8	59	42,596.69	14,117.22
NOBLE CONSTRUCTION	1	1	1	2	168.15	53.00
OWENSBORO RIVER SAND AND GRAVEL COMPANY	2	2	1	1	16.40	9.10
OXFORD MINING COMPANY-KENTUCKY LLC	4	5	2	7	5,795.60	2,593.13
PATRIOT COAL COMPANY, LP	11	11	10	2	945.82	870.00
PENNYRILE ENERGY LLC	1	1	1	1	10,869.60	175.00
PHOENIX RESOURCES, LLC	2	13	1	1	154.68	130.00
PINE BRANCH MINING, LLC	5	17	4	13	8,596.27	6,024.84
PRAIRIE DOCK COMPANY LLC	1	1	1			
PREMIER ELKHORN COAL LLC	24	33	17	37	52,648.11	9,530.34
RAVEN ENERGY INC	3	4	1	1	264.12	105.00
RED ROCK ENTERPRISES INC	1	1	1	1	6.10	6.10
REVELATION ENERGY LLC	271	460	155	242	341,303.30	47,914.34
RIO MINING LLC	3	3	1	1	87.51	17.50
RIVER VIEW COAL, LLC	1	3	1	3	30,946.74	806.27
ROAD FORK DEVELOPMENT COMPANY INC	2	3	2	9	20,440.59	888.28
ROCKHAMPTON ENERGY LLC	2	3	1	2	3,307.56	44.40
ROUGH CREEK MINING LLC	2	2	2	5	47,099.97	606.30
SANDLICK COAL COMPANY LLC	4	4	2			
SEBREE MINING LLC	2	3	2	6	30,076.15	582.10
SEQUOIA ENERGY LLC	6	8	6	12	22,964.14	953.38
SIDNEY COAL COMPANY INC	3	5	3	31	81,495.64	1,931.42
SMITH COAL PROCESSING	1	1	1	1	10.90	10.00
SOUTHBOUND COAL, LLC	1	1	1	2	857.29	55.00
SOUTHEASTERN LAND, LLC	1	4	1	6	9,252.24	194.73
SOUTHFORK COAL CO	1	1	1	4	3,193.21	160.34
SPURLOCK MINING, LLC	13	38	7	35	29,173.12	1,015.40
STAFLAND ENERGY LLC	1	1	1	1	317.36	147.00
STRAIGHT CREEK COAL MINING INC	10	20	6			
STRATA MINING INC	1	1	1	2	3,000.88	462.08
STURGEON MINING COMPANY INC	3	3	2	6	2,204.26	979.04
T & T COAL INC	2	2	2	3	181.31	98.00
T & T ENERGY, LLC	5	5	3	3	852.26	505.00
THE LITTLE KENTUCKY ELK LLC	2	3	1	1	800.19	6.00
TORCHLIGHT ENERGY, INC	1	1	1	1	122.29	11.00
TRITON ENERGY COAL INC	3	3	1	1	10.43	6.00
VIKING ACQUISITION GROUP LLC	12	13	3	3	903.56	225.86

Permittee	# NCs	Violations	Permits in Violation	Total Permits	Permitted Acres	Disturbed Acres
VIRGINIA FUEL CORPORATION	1	2	1	14	17,623.81	991.91
WARRIOR COAL LLC	1	1	1	8	35,588.28	698.00
WEBSTER COUNTY COAL LLC	2	2	2	8	65,050.32	614.60
WELLMORE COAL CORPORATION DBA THE BLACK DIAMOND CO	1	2	1	14	15,224.75	481.00
WESTERN KENTUCKY MINERALS, INC	2	2	2	4	1,707.70	1,047.00
WILMAY LAND HOLDINGS INC	1	1	1	1	203.90	20.00
XCELL ENERGY AND COAL COMPANY, LLC	1	3	1			