

# Office of Surface Mining Reclamation and Enforcement



## Knoxville Field Office Annual Report Fiscal Year 2013



*Mine Site Reclaimed with Forestry Reclamation Approach*



# **OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT**

## **Annual Evaluation Report**

for the

Regulatory and Abandoned Mine Land Programs

Administered by the Knoxville Field Office

of

**TENNESSEE and GEORGIA**

for

**Fiscal Year 2013**

October 1, 2012 to September 30, 2013

Prepared by:

**Knoxville Field Office**

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## EXECUTIVE SUMMARY

### Tennessee Federal Program

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) provides authority for the Office of Surface Mining Reclamation and Enforcement (OSMRE) to implement a Federal regulatory program in the states without approved regulatory programs. In Tennessee, OSMRE implemented the Federal regulatory program in October 1984 when the State repealed its surface mining law. OSMRE conducts full Federal program functions from the Knoxville Field Office (KFO) with primary regulatory responsibilities for inspection, enforcement, and permitting in the state of Tennessee. KFO also has regulatory responsibilities for surface coal mining activities in the state of Georgia since they have never adopted an approved state program under SMCRA.

#### REGULATORY

##### Accomplishments

The following listed items highlight KFO's major accomplishments during Fiscal Year 2013:

- Lands Unsuitable for Mining Petition - On October 1, 2010, the state of Tennessee submitted a Lands Unsuitable for Mining petition for the North Cumberland Wildlife Management Area and Emory River Tracts Conservation Easement. The petition requests that OSMRE designate more than 67,000 acres of mountainous terrain as unsuitable for surface coal mining in support of a conservation project called "Connecting the Cumberlands". In November 2010, OSMRE determined that the state of Tennessee's petition was complete. In concert with three cooperating Federal agencies (U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. National Park Service), OSMRE initiated development of a combined Petition Evaluation Document/Environmental Impact Statement. OSMRE was developing the draft Petition Evaluation Document/Environmental Impact Statement (PED/EIS) document when the State expressed objections to the alternatives under analysis in the EIS portion of the document. After meeting with the State and considering their concerns, in 2013, OSMRE revised the alternatives to be evaluated and initiated the process of securing contractual services to develop and finalize a PED/EIS document that is fully compliant with all regulatory requirements.
- Reforestation - During 2013, a total of 247,794 trees were planted on seven reclaimed mine sites in Tennessee. Due to KFO's continued advocacy of the Forestry Reclamation Approach, 100 percent of trees planted on reclaimed mines in Tennessee in 2013 were on sites prepared using the Forestry Reclamation Approach. Outreach efforts in KFO have been successful in educating the public about mined land reforestation. These efforts exist as Arbor Day events, National Technical Training Program courses, and informal and formal lectures. Participants in these events range from middle school to graduate level students, industry, state officials, and local citizens.
- Interagency Coordination - In Fiscal Year (FY) 2013, the Local Interagency Working Group held its second joint hearing in Knoxville, Tennessee at the Tennessee Department of Environment and Conservation (TDEC) office. The hearing was requested by two non-governmental groups concerned about the environmental effects of a proposed 1,088-acre

surface mine. A two-part format was used; an informal question and answer period was held in early afternoon followed by the formal conference starting at 6 p.m. Approximately 30 people were in attendance for the hearing. Representatives from TDEC, the Nashville District U.S. Army Corps of Engineers (USACE), the Cookeville U.S. Fish and Wildlife Service (USFWS) Field Office, and Region 4 of the Environmental Protection Agency were present.

- Youth Initiative - KFO employed a total of two interns during FY 2013. These interns worked in areas of geology, geographical information systems, hydrology, and administration. The interns assisted with projects at KFO such as the: Lands Unsuitable for Mining Petition, Laserfische, GeoMine, and Water Quality Database.

### **National Measurements**

- Coal Production - Tennessee currently ranks twenty-first in production of coal among the 26 coal-producing states. Tennessee was also ranked twenty-first in FY 2012. Over the past 10-year period, coal production has declined from 2.56 million tons in calendar year 2003 to 1.15 million tons in calendar year 2012 (the last year data was available). This is an overall decrease of 55 percent. There has been a corresponding decrease in active coal producing permits from nine (four underground mines and five surface mines) in FY 2012, to four (two underground mines and two surface mines) in FY 2013. There has been no active coal production in the state of Georgia for several years.
- Inspections - During FY 2013, KFO successfully conducted the required number of inspections at all active, inactive, and abandoned mining and reclamation operations in Tennessee and Georgia. KFO inspectors conducted 1,383 inspections at 311 inspectable units in Tennessee. During these inspections, KFO issued 104 violations that resulted in 25 measurable off-site impacts at nine permits.
- Bond Releases - KFO granted bond releases on 2,276 acres for Phase I reclamation, 2,147 acres for Phase II reclamation, and 1,931 acres for Phase III reclamation.

### **Customer Service/Stakeholder Outreach**

- KFO continues to experience a decrease in the number of citizen's complaints received. In FY 2009, 11 complaints were received. During FY 2013, KFO only received two citizen's complaints, for an overall decrease of 82 percent over the last five years. All of the complaints received during FY 2013 were investigated and responses were provided to the complainant within 10 days of concluding the investigations.
- KFO ensures that citizens, environmental groups, and industry representatives have access to all regulatory program files including permitting, inspection and enforcement, and bonding. Managers and staff have open-door policies for any segment of the public to discuss issues that may arise. In FY 2013, KFO provided assistance requests to several dozen people and groups that ranged from simple questions concerning coal mine permits to complex water quality and inspection report requests. KFO continues to receive high marks on Government Performance and Results Act (GPRA) forms submitted from those that receive assistance.

- Just as with public participation in the SMCRA regulatory process, KFO solicits input from numerous local, State, and Federal agencies that may have an interest in a proposed permitting action. KFO maintains a mailing/contact list including 11 different State and Federal agencies that receive notification of proposed permitting actions.

### Outstanding Issues

- Cost Recovery - In anticipation of implementing the Cost Recovery Rule, KFO has instituted changes to the WBS time codes and is developing an electronic tracking system to enable all permitting costs and project work hours to be tracked. Changes to the WBS time codes began in late 2011 and have enabled KFO to estimate the amount of hours expended for cost recovery and other major cost categories. The tracking system is currently under development with the first prototype system reviewed in late 2013. The developers have received comments and suggestions for improvement and have incorporated all modifications into the latest beta version. The developers will complete revisions on the latest version and will roll it out in early 2014.
- Proposed Endangered Species Listing - The USFWS proposed listing the northern long-eared bat. The proposal appeared in the October 2, 2013, Federal Register with comments due by December 2, 2013. The USFWS plans to identify areas of critical habitat and develop the proposed listing by October 2014. White-nose syndrome continues to spread throughout the East and has begun to spread in the Midwest. It is considered the primary threat to the northern long-eared bat.

### Technical Assistance and Grants

- The Geographical Information System (GIS) maintained by KFO staff supports the OSMRE GeoMine initiative and provides valuable assistance to the permitting staff. Our GIS specialists processed numerous requests in FY 2013 including: responding to requests for mining locations in Georgia; providing monitoring data for consultants; developing active permit folders (engineering maps, hydrologic and geologic data); and creating data bases for analysis of the North Cumberland Wildlife Management Area, Lands Unsuitable for Mining Petition.
- KFO continues to have a number of staff members serving on various projects, teams, and assignments that are of common interest to the Appalachian Region and to all of OSMRE. During FY 2013, the Technical Group expended numerous hours working on OSMRE initiatives such as Cost Recovery, the Stream Protection Rule, and the North Cumberland Wildlife Management Area, Lands Unsuitable for Mining Petition.

### ABANDONED MINE LANDS

- During FY 2013, TDEC received a total of \$2,700,000.00 in Federal grant funding. TDEC's Land Reclamation Section completed one waterline extension project, one reclamation project, and two landslide projects. Prior to construction, the water quality in the waterline project area exceeded secondary drinking standards in iron and manganese. As a result, 82 people received potable water. Reclamation of the three non-water projects assured that 330 people are no longer exposed to potential safety risks from abandoned mine lands.

- TDEC reclaimed a total of 208 GPRA acres. The GPRA holds Federal agencies accountable for using resources wisely and achieving program results. GPRA requires agencies to develop plans for what they intend to accomplish, measure how well the agency is doing, and make appropriate decisions based on the information gathered.
- The Abandoned Mine Land (AML) Emergency program was transferred to the TDEC, Land Reclamation Section on October 1, 2010. Tennessee agreed to implement the program in accordance with the provisions of the Federal Assistance Manual. Tennessee had no emergency projects during FY 2013.
- Tennessee program amendment was published in the Federal Register in February 2013.

## REGULATORY

### I. INTRODUCTION

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSMRE) in the Department of the Interior. SMCRA provides authority to OSMRE to oversee the implementation of and provide Federal funding for state regulatory programs that have been approved by OSMRE as meeting the minimum standards specified by SMCRA. The Act provides authority for OSMRE to implement a Federal regulatory program in the states without approved regulatory programs. In Tennessee, OSMRE implemented the Federal regulatory program in October 1984 when the State repealed its surface mining law. OSMRE also has regulatory authority responsibilities for surface coal mining activities in the state of Georgia since they have never adopted an approved state program under SMCRA. This report contains summary information regarding the Tennessee and Georgia Federal program and the effectiveness of the Federal program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the period of October 1, 2012, to September 30, 2013. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Knoxville, Tennessee OSMRE Office. You can also view this report on the OSMRE website at <http://odocs.OSMRE.gov/>.

The following acronyms are used in this report:

AMD	Acid Mine Drainage
AML	Abandoned Mine Land
ARRI	Appalachian Regional Reforestation Initiative
CCWF	Coal Creek Watershed Foundation
EPA	U.S. Environmental Protection Agency
FOCIS	Field Office Comprehensive Information System
FRA	Forestry Reclamation Approach
FY	Fiscal Year
GIS	Geographical Information System
GPRA	Government Performance and Results Act

IUL	Inspectable Units List
KFO	Knoxville Field Office
LIWA	Local Interagency Working Agreement
LUM	Lands Unsuitable for Mining
NCWMA	North Cumberland Wildlife Management Area
NOI	Notice of Intent to Explore
NPDES	National Pollution Discharge Elimination System
OSMRE	Office of Surface Mining Reclamation and Enforcement
PED/EIS	Petition Evaluation Document/Environmental Impact Statement
SMCRA	Surface Mining Control and Reclamation Act of 1977
TDEC	Tennessee Department of Environment and Conservation
TWRA	Tennessee Wildlife Resources Agency
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

## II. OVERVIEW OF THE TENNESSEE COAL MINING INDUSTRY

Tennessee's coal resources are found in 22 counties and they extend from the Kentucky border to the Alabama border in the east central portion of Tennessee. Mining in the northern counties is primarily in the steep slope areas of the Cumberland Mountain range. Mining in the southern counties is generally confined to area-type operations due to the relatively flat terrain associated with the Cumberland Plateau.



*Figure 1. Location of Tennessee coalfields.*

Tennessee's recoverable coal reserves of 0.5 billion short tons exist in bituminous coal beds that range from less than 28 inches to 42 inches in thickness at depths of up to 1,000 feet. Tennessee coal is used primarily for generating electric power.

Tennessee ranked twenty-first in production of coal among the 26 coal producing states in FY 2012. Coal production declined from a high of approximately 11.26 million tons in 1972 to 1.15 million tons reported during calendar year 2012. As of September 30, 2013, only four mines were actively producing coal. The four active sites include two underground mines comprised of 114 acres and two surface mines covering 766 acres. The permitted acreage for underground

mines does not include the shadow area, which is the footprint of the underground disturbance transposed to the surface area above.

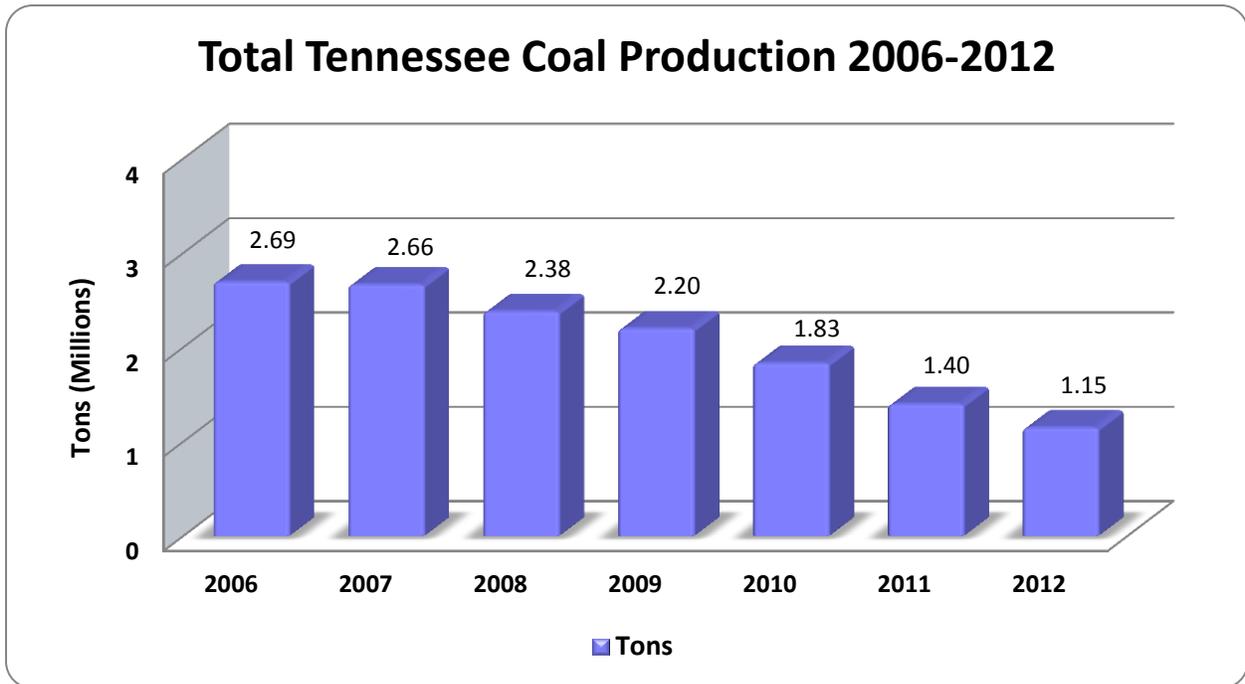


Figure 2. Total Tennessee coal production 2006 to 2012.

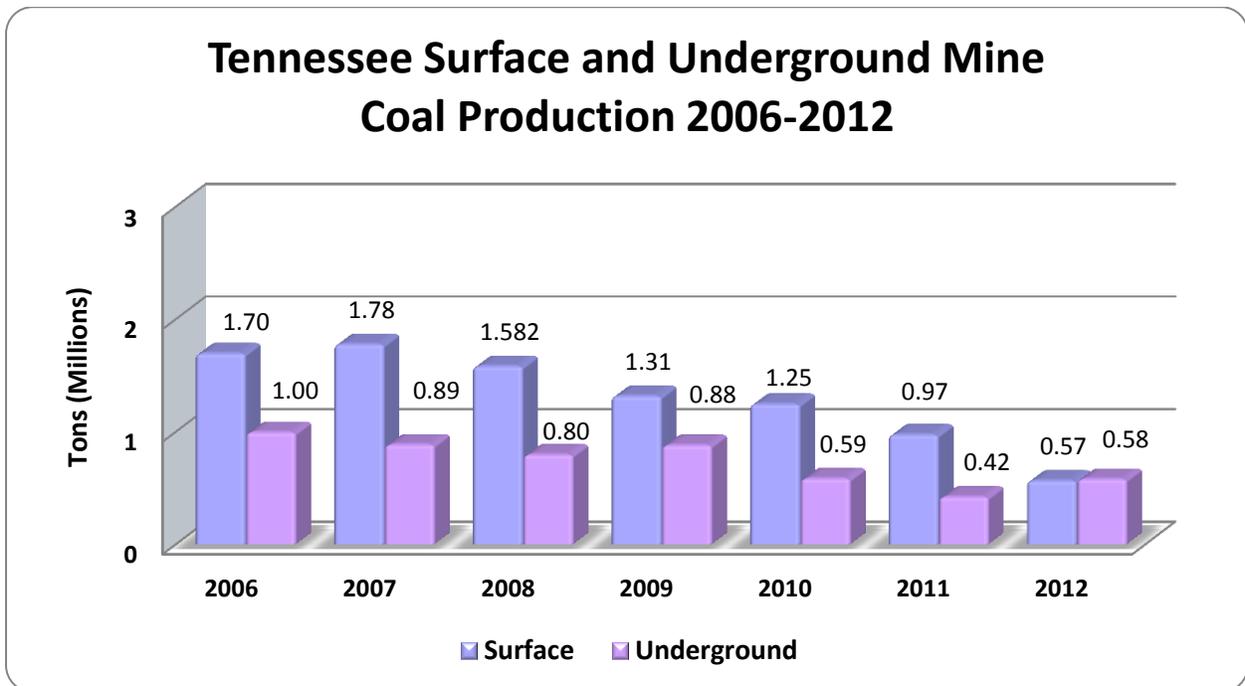


Figure 3. Tennessee surface and underground mine coal production 2006 to 2012.

Currently, there is one abandoned mine in Georgia. It is located in Dade County in the northern portion of the state. Ten acres of this surface mine were disturbed during the mining operation. Five other abandoned mine sites located in Georgia were evaluated during FY 2013. It was determined that reclamation was complete and the sites were released from the Inspectable Units List (IUL). There has been no coal production or permitting activity in Georgia for several years.

### **III. OVERVIEW OF THE PUBLIC PARTICIPATION OPPORTUNITIES IN THE TENNESSEE FEDERAL PROGRAM**

The Tennessee Federal Program provides numerous public participation opportunities in its program activities. Efforts are made to encourage participation and to inform the public of the avenues to participate in the regulatory program.

- **Public/Citizen Participation in the Regulatory Process**

Citizens, environmental groups, and industry representatives have access to all regulatory program files including permitting, inspection and enforcement, and bonding. Managers and staff have open-door policies for any segment of the public to discuss issues that may arise.

During the permitting process, Knoxville Field Office (KFO) is available to meet informally with individual citizens or organizations that have expressed concerns or have an interest in pending permit applications, permit renewals, or revisions to existing permits. The purpose of these meetings is to answer questions relative to the concerns and to provide information and/or explanations with respect to the permitting actions at issue. As a part of this informal public participation process, KFO maintains a contact list of individuals and organizations that have expressed an interest in being notified of permitting actions under consideration by KFO. In FY 2013, KFO met with individual citizens or representatives of environmental groups on at least 30 different occasions, and discussed numerous individual issues during telephone conversations and inquiries.

Formal public participation opportunities are also afforded on all applications for new permits, significant revisions, and renewals reviewed in KFO. In FY 2013, public conferences and associated input were requested on three new permits and five renewal applications that were being processed by KFO. A total of five public conferences were conducted in FY 2013, one of which was in response to an earlier fiscal year request. The public conference on the remaining four requests should occur during the 2014 fiscal year.

- **Agency Participation in the Regulatory Process**

Just as with public participation in the SMCRA regulatory process, KFO solicits input from numerous local, state, and Federal agencies that may have an interest in a proposed permitting action. KFO maintains a mailing/contact list including 11 different state or Federal agencies that receive notification of proposed permitting actions. Local or county-specific mailing/contact lists are also maintained for each of the 20 historical coal

producing counties in Tennessee. Each of these county-specific lists generally include from 8 to 10 local agencies or officials that are also notified of proposed permitting actions. In addition to providing written notification to these agencies, KFO continues to participate in periodic meetings with agencies such as TDEC, USFWS, Tennessee Wildlife Resources Agency (TWRA), Environmental Protection Agency (EPA), USACE, and National Park Service to discuss issues related to coal mining in Tennessee. In FY 2013, numerous interagency meetings occurred in response to individual proposed permitting actions or concerns, issues, and clarification of existing policies.

- **Industry Meetings**

Pre-Permit Application Meetings - KFO continues to meet with individual coal companies or their consultant(s) prior to submittal of a permit application. The purpose of these meetings is to discuss potential issues that might arise during the permitting process and to seek resolution of concerns/problems that address regulatory requirements. KFO instituted a pre-application process within the Local Interagency Working Agreement (LIWA) whereby the applicant meets with OSMRE, USACE, EPA, USFWS, and TDEC while the SMCRA application is being developed for submittal to OSMRE. The purpose of this meeting is to ensure all agencies with regulatory responsibilities review the proposed application and request information before the application is finalized for submittal. In 2013, two LIWA pre-permit application meetings were held.

- **Outreach Efforts with Customers and Stakeholders**

KFO continues to improve its relationships with its customers and stakeholders by providing increased opportunities for participation in the regulatory functions of the Field Office and by meeting with state and Federal agencies, citizens, landowners, and industry to discuss concerns and to foster better working relationships. The results have produced enhancements in compliance with respect to operators anticipating and addressing potential problems before they develop into violations. There have also been enhancements in communications with operators and landowners, based on industry feedback since the outreach efforts began. This feedback has consisted of improved oral communications as well as input into development of field office policies, procedures, and guidance documents.

#### **IV. MAJOR ACCOMPLISHMENTS/ISSUES/INNOVATIONS IN THE TENNESSEE FEDERAL PROGRAM**

- **Inspection Frequency**

Active Sites

KFO is responsible for conducting complete and partial inspections of coal mining sites in Tennessee and Georgia in accordance with 30 CFR 842.11(c). This requirement (inspection mandate) includes an average of at least one complete inspection per calendar quarter and an average of at least one partial inspection per month of each active coal mining and reclamation operation. With respect to inactive coal mining and reclamation

operations, OSMRE must conduct an average of at least one complete inspection per calendar quarter and such partial inspections as are necessary to ensure effective enforcement of the regulatory program and SMCRA.

During FY 2013, KFO successfully conducted the required inspection mandate in accordance with 30 CFR 842.11 at all active, inactive, and abandoned coal mining and reclamation operations in Tennessee.

<b>Mine Status</b>	<b>Number of Complete Inspections Required</b>	<b>Number of Complete Inspections Conducted</b>	<b>Number of Partial Inspections Required</b>	<b>Number of Partial Inspections Conducted</b>
<b>Active</b>	332	327	664	735
<b>Inactive</b>	140	130	0	30
<b>Abandoned</b>	172	134	62	27
<b>Total</b>	<b>644</b>	<b>591</b>	<b>726</b>	<b>792</b>

*Figure 4. Inspections by type during FY 2013.*

The totals for required inspections are approximations based on the number of sites on the IUL at the beginning of the fiscal year. Over the course of the year, some sites that were active become inactive and some are released from the IUL. This resulted in a significant decrease in the number of required inspections.

<b>Frequency Calculations</b>	
Number of Permits Requiring Inspections	<b>281</b>
Number of Inspections Conducted	<b>1,383</b>
Number of Permits meeting Frequency	<b>281</b>
Percentage of Permits Meeting Frequency	<b>100%</b>

*Figure 5. Frequency calculations for inspections conducted during FY 2013.*

The data used to derive the number of permits requiring inspections and the number of inspections conducted in the above table emanates from Table 10 of Appendix 1.

### Abandoned Sites

Abandoned sites in Tennessee and Georgia are required to be inspected by KFO on a site specific inspection frequency in accordance with the criteria and determination established in 30 CFR 842.11 (e) and (f) (known as the abandoned site rule). These sites have had some reclamation, but insufficient to satisfy regulatory requirements for complete reclamation. The majority of these sites have inspection frequencies of one complete inspection per calendar year and have existed longer than 20 years. Most are covered to a large extent with naturally occurring vegetation and have become stabilized. During FY 2013, KFO implemented a plan to improve inspection frequency on abandoned sites. Also, a total of fifty Interim Program abandoned sites were transferred to the state of Tennessee because they are eligible for AML funding. During the year, all abandoned sites on the IUL that had not been transferred to the state of Tennessee were inspected at the mandated inspection frequency.

### Bond Forfeited Sites

Bond forfeited sites in Tennessee and Georgia are required to be inspected by KFO on a site specific inspection frequency in accordance with the criteria and determination established in 30 CFR 842.11 (e) and (f) (the abandoned site rule). The majority of these sites have established inspection frequencies of one complete inspection per calendar year. Most of the bond forfeiture sites in Tennessee have had substantial reclamation efforts utilizing forfeited bond funds but several remain on the IUL due to deficiencies in reclamation. During FY 2013, additional reclamation work was conducted on three bond forfeited sites using civil penalty funds. It is expected that the three sites will be released from the IUL in FY 2014.



*Figure 6. Pond on the left and mine area on the right reclaimed with bond forfeiture proceeds.*

## Notice of Intent to Explore (NOI) Sites

KFO inspectors also conducted 34 complete inspections and 13 partial inspections on 30 NOI sites. SMCRA does not require a minimum inspection frequency for NOI sites. Ten NOI's were released from the IUL during FY 2013.

- **Civil Penalty Projects**

The Wheel Ridge Reclamation Project consists of three sites located in Lick Fork, Capuchin Creek, and Smith Creek watersheds of Scott and Campbell Counties, Tennessee. These permits were issued and bonded by the state of Tennessee prior to OSMRE assuming SMCRA primacy in Tennessee. KFO inherited bonds that were inadequate from the outset, and after OSMRE assumed primacy, the permittees abandoned the sites. Forfeited bond monies were used to conduct initial site reclamation. Civil penalty funds are being used to complete site reclamation and maintenance. Reclamation consists of removing five ponds, restoring affected stream channels, installing riprap lined diversion ditches, revegetating bare areas, and planting trees. Tree planting will be conducted at the Dan Branch permit in the spring of 2014, with native species and reclamation activities were completed in the fall of 2013. Contract reclamation specifications for these sites were developed by the Appalachian Region Federal Reclamation Program staff.

- **North Cumberland Wildlife Management Area (NCWMA) Lands Unsuitable for Mining (LUM):**

### Background

On October 1, 2010, the state of Tennessee filed a petition with OSMRE to designate the ridgelines within the NCWMA and the Emory River Tracts Conservation Easement area in Anderson, Campbell, Morgan, and Scott Counties as unsuitable for surface coal mining operations. The State filed the petition on behalf of TWRA and TDEC under OSMRE's Federal program to regulate surface mining operations within Tennessee. As described at 30 CFR Part 942, the State alleges that the NCWMA may be adversely affected by surface coal mining operations in the following ways:

- (a) Surface mining is incompatible with their existing land use plans or programs; and,
- (b) Surface mining affects fragile or historic lands in which such operations could result in sufficient damage to important historic, cultural, scientific, and esthetic values and natural systems.

OSMRE responded to the petitioner by letter dated October 29, 2010, with a request for additional information in order to finalize the completeness review. The petitioner responded to OSMRE's request on November 8, 2010. OSMRE reviewed the additional information and the petition was deemed administratively complete and was accepted for processing on November 23, 2010.

On three different occasions during 2012, OSMRE met with the petitioner. These meetings were intended to obtain additional information that would facilitate a full and complete analysis of the proposed LUM petition. The petitioner provided a number of clarifications to their petition. All additional information and clarifications obtained have been documented and placed in the LUM administrative record for public review.

### Public Outreach

OSMRE proceeded to process the petition by mailing notices on January 14, 2011, to the petitioner, interested state and Federal agencies, landowners, and other interested parties that the petition has been accepted for processing. The parties were also notified that the action on the petition is a major Federal action and would require OSMRE to prepare a combined PED/EIS. OSMRE announced the acceptance of the petition to the public through legal notices in the local newspapers. In addition, the petition was made available for review at the OSMRE KFO; the Anderson County Planning and Zoning Office in Clinton, TN; the Morgan County Clerk's Office in Wartburg, TN; the Campbell County Mayor's Office in Jacksboro, TN; and the Scott County Assessor of Property Office in Huntsville, TN.

During March 2011, KFO conducted three scoping meetings at various locations in proximity to the proposed LUM petition area. These meetings were intended to be a "fact finding forum" where both the public and industry could learn about the proposed unsuitability petition and could present to OSMRE their issues and concerns related to the LUM petition.

### Agency Participation

OSMRE invited Federal agencies to participate as cooperating agencies in the development of the LUM PED/EIS document. Three agencies, the National Park Service, the USFWS, and EPA accepted this invitation. Each of these agencies has been participating fully in the development of the PED/EIS document.

### Technical Evaluation

The petition area is part of the NCWMA, comprised of the Royal Blue, Sundquist, and New River Units, and part of the Emory River Tracts Conservation Easement. The total acreage impacted by the LUM petition for the combined NCWMA and the Emory River Tract Easement is approximately 167,075 acres. The petition area, including the ridgelines and a 600-foot buffer zone on each side of the ridgelines identified by the State, is approximately 67,326 acres. The PED/EIS proposes to evaluate the environmental impacts of the proposed action and each of the alternatives on the existing environment of the NCWMA and Emory River Tract areas.

OSMRE contracted for data and technical services to assist the agency in characterizing the existing environmental conditions and uses within the NCWMA and Emory River Tract. To help characterize the hydrologic regime within the NCWMA and Emory River Tract, OSMRE purchased equipment, undertook field data collection, and sought analytical services from various vendors. Light Detection and Ranging or "LiDAR" and

high resolution photography was purchased to provide terrain and land cover information for the project area. Coal data and related information was obtained to assist in the preparation of the coal reserve model for the area. Contracts were secured and studies completed to inform the agency's evaluation of the various resources of the area including socioeconomics, recreation, aquatic resources, and aesthetics, including both viewshed modeling and soundscape (noise) within the LUM petition area.

OSMRE initiated development of the PED/EIS in-house with limited assistance from an outside contractor. Drafting of the PED/EIS significantly impacted KFO resources. KFO professionals spending most of their time on the process included: a hydro/geologist, a civil engineer, a terrestrial biologist, an aquatic biologist, several GIS specialists, a National Environmental Policy Act coordinator, and others as special high intensity tasks warranted. In addition, KFO sought and received assistance from both the OSMRE Appalachian and the Mid Continent Regional offices for coal reserve modeling and hydrologic field analysis.

#### Competing Land Uses in the NCWMA and Emory River Tract

The State's petition expresses the need to preserve the natural beauty and fragile nature of the NCWMA and Emory River Tract (Figure 7). The Cumberland Trail State Park passes through the NCWMA and represents part of a trail system that will extend from the southern border with Georgia to the northern border with Kentucky. The State's petition has indicated that there are several threatened and endangered species of plants within the NCWMA.

The State has implemented a multiple use wildlife management plan on the NCWMA and Emory River Tract. The primary usage for this land is for hunting and off road vehicles but other recreational activities such as hiking, camping, mountain biking, rock climbing, fishing, etc. are also permitted.



*Figure 7. Scenic view in the NCWMA.*

The land has also been used for natural resource extraction such as coal mining, oil and gas well drilling, quarrying, and logging. Logging activity permitted by agreement as part of the original purchase is also being extensively conducted on the NCWMA and Emory River Tract. OSMRE has conducted field tests to determine the impact of various types of land use such as mining and logging on the sediment loads to receiving streams. The agreement that allows logging on the Sundquist Unit and portions of the Royal Blue Unit of the NCWMA is set to expire in 2017, at which time, timber management reverts to TWRA. Examples of the past and recent land use practices are evident in Figure 8.



*Figure 8. View of recent logging activities in the NCWMA.*

#### Next Steps in LUM Petition Evaluation

With the selection of a new set of alternatives for analysis, KFO initiated the process of securing the services of a contractor to assume the role of developing the draft PED/EIS document. In FY 2014, KFO anticipates that a contractor will be selected and significant progress will be made in development of the draft PED/EIS document. This progress should include developing a preliminary draft document for review and comment by both OSMRE and the aforementioned cooperating agencies, incorporating agency input into the draft document, and preparing the draft document for public review.

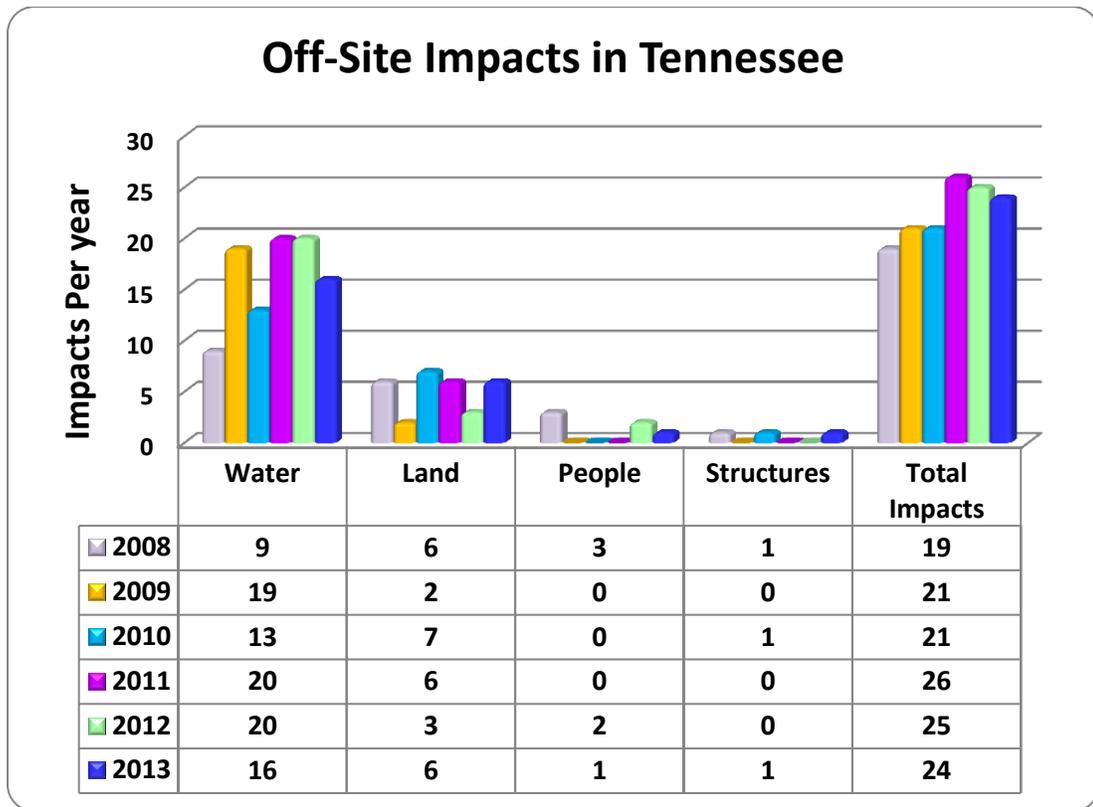
- **Off-Site Impact Study**

During FY 2013, KFO continued a study of off-site impacts in Tennessee. In order to evaluate sufficient off-site impact data to determine trends and causes, data from the past six-year period (FY 2008 through FY 2013) was used.

Off-site impact data is routinely collected and reported in conjunction with enforcement actions issued as a result of SMCRA mandated mine site inspections. KFO enforcement files were reviewed and interviews were conducted with reclamation specialists having knowledge of field decisions and circumstances prior to impact occurrence.

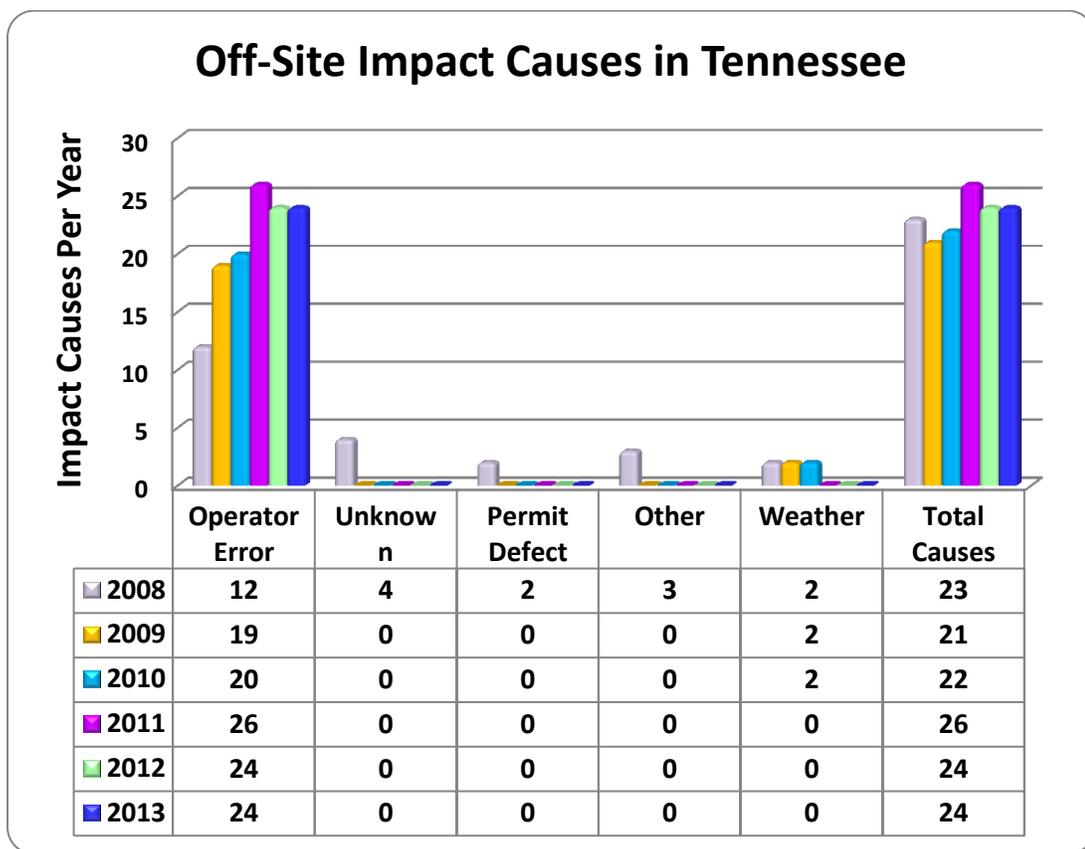
During the six-year study period, a total of 136 off-site impacts to people, land, water, and structures were identified. The study revealed the vast majority of impacts during this period were to water, followed by land, people, and structures.

Off-site impacts to water most often occurred when sediment or iron laden drainage or low pH runoff left sites and entered receiving streams. Many of the impacts to land resulted from landslides, encroachment off permits, and from blast fly rock. People and structures were adversely affected when public roads were impacted by mining operations. Adverse impacts to people also resulted from blast vibrations or flyrock.



*Figure 9. Off-site impacts in Tennessee during FY 2008 to FY 2013.*

The study also found the overwhelming majority of Tennessee off-site impacts during this period were caused by operator error.



*Figure 10. Off-site impact causes in Tennessee during FY 2008 to FY 2013.*

Data collected during FY 2013 shows the majority of off-site impacts continue to occur to water and land and the overwhelming majority of impact causes are attributed to operator error. The study also reveals a general increase in total impacts over the six-year study period although there was a decrease in the number of impacts in FY 2013. KFO believes the general increase in impacts was due to increased rainfall. Additionally, three permittees under common ownership, are responsible for 46 percent of these off-site impacts. KFO continues to work with these owners to reduce the number of violations and related impacts on the company’s sites. KFO will continue to collect and study data for possible improvements in reducing off-site impacts.

- Trust Funds**

Trust funds or annuities are intended to guarantee treatment of long-term postmining pollutional discharges associated with sites permitted under the Tennessee Federal Program. The primary purpose of such trusts is to protect the environment, and the health and welfare of the public, while providing an economical way through which the trust or annuity will be invested and managed for the long-term operation of water control and treatment facilities associated with coal mine sites.

In 2013, OSMRE again conducted annual reviews of the Lexington Coal Company trust funds for the Gladly Fork, Energy Wash Facility, Big Brush II, and Pine Ridge East treatment trusts. A total of \$10.4 million was invested at the end of 2013 in these four

trust funds to provide long-term treatment of pollutional discharges emanating from Lexington Coal Company sites.

Lexington Coal Company was sold in FY 2012 and became Lexington Coal Company, LLC. The new owners acquired the assets and liabilities of the former owner and have maintained the sites as required by existing settlement agreements. In 2013, the new owners re-vamped several key aspects in two of the treatment systems to address irregularities in water quality effluent during high flow events. The trusts performed better than expected in 2013 and are currently funded above the required balance.

- **Federal Regulatory GIS**

In FY 2013, KFO GIS specialists provided critical technical support to KFO to help process the NCWMA LUM petition, implement the Federal Program for Tennessee, and assist parties outside KFO. Listed below are a few examples:

NCWMA LUM

- Revised LUM alternatives based on multiple environmental criteria and provided slope analysis of various alternatives;
- Prepared presentations of GIS analyses and maps of the LUM area;
- Provided technical support to Appalachian Region Office technical personnel working on LUM coal resource calculations.

Federal Program for Tennessee

- Provided technical assistance to a work group formed to resolve permitting issues arising from a suit filed by four environmental groups over alleged violations of the Endangered Species Act;
- Completed data entry of laboratory-grade environmental data for quarterly surface-water (20,000+ records) and quarterly ground-water (10,000+ records) samples which can be mapped to specific geographic collection points and discharge monitoring reports (86,000+ records);
- Created a spatial dataset determining reclamation condition of 2,700+ legacy and current coal mining permits;
- Trained student interns from the AmeriCorps and Pathways Programs.

Assistance to Parties Outside KFO

- Provided surface- and ground-water quality data and use of scanning equipment for large underground mine maps, and contributed 50+ coal mining datasets to TDEC Nashville office;
- Provided coal mining datasets to TWRA to help resolve road maintenance responsibilities;
- Provided 12 coal mining datasets, three water quality tables, and a biological survey dataset to USFWS;
- Supported GeoMine by contributing new KFO GIS datasets of permit reclamation status and bonded areas.



*Figure 11. AmeriCorps student intern collecting a water sample from an AMD source for a spatial database of AMD sites.*

- **Tennessee Reforestation Initiative**

The Appalachian Regional Reforestation Initiative (ARRI) is a cooperative effort among the states of Kentucky, Maryland, Ohio, Pennsylvania, Virginia and West Virginia; OSMRE; industry, environmental organizations, academia, local state and Federal government agencies and local citizenry. The goals of the initiative are to plant more high-value hardwood trees on reclaimed coal mined lands in Appalachia and to increase the survival rates and growth rates of the planted trees by using the Forestry Reclamation Approach (FRA). The FRA is a science-based technology designed to help restore native hardwood forest habitat and enhance natural succession of native forest plants on previously mined land. Additional information about the FRA is available on the ARRI website <http://arri.OSMRE.gov/>. KFO staff serve as members of the ARRI Core Team and the ARRI Science Team, and continue to provide leadership and active support in promoting and achieving the goals of ARRI.

During 2013, a total of 247,794 trees were planted on 7 permits, accounting for 388 reclaimed mine acres in Tennessee. Due to KFO's continued advocacy of the FRA, 100 percent of trees planted on reclaimed mines in Tennessee in 2013 were on sites prepared using the FRA. This is the first year that KFO has achieved 100 percent utilization of the FRA.

KFO will continue their support of ARRI by working to increase the number of trees planted on active mines; continuing a 100 percent utilization of the FRA on new acres permitted for tree planting; and increasing outreach and awareness efforts with conservation groups, environmental groups, and landowners through training sessions and meetings.

#### Excellence in Reforestation Award

KFO annually recognizes exemplary performance and execution of the FRA for the previous calendar year. This year, KFO presented its 2012 Excellence in Reforestation

Award to the Coal Creek Watershed Foundation (CCWF) for their outstanding and continued support of the FRA.

For the past six years, KFO has partnered with CCWF in organizing Tennessee's annual Arbor Day events. This foundation has fully embraced the efforts of ARRI, by providing nearly 4,500 trees which were planted by several hundred students from seven elementary and middle schools in Tennessee's coalfields. Through annual Arbor Day events, OSMRE and CCWF have been able to educate students and other volunteers about mining history, environmental service in the community, and the benefits of reforestation on mined lands.



***Figure 12. Barry Thacker of the Coal Creek Watershed (center of photo) showing students the proper way to plant a tree on a steep-slope site prepared according to the FRA.***

#### FRA Workshops, Outreach, and Publications

KFO ARRI members continue to play a major role in community and industry outreach. A KFO ARRI core team member spoke as a guest lecturer at Alabama A&M University's Center for Forest Ecosystem Assessment Seminar Series. KFO also provided an ARRI core team member to lecture at two FRA classes this year in Middlesboro, and London, Kentucky.

Additionally, KFO provides continued outreach to educate the community about reforestation on mine sites. Annual Arbor Day events provide a venue to local students and other volunteers who wish to learn about mining history, environmental service in the community, and the benefits of reforestation on mined lands. These issues are also presented to students in their classrooms prior to the event.

The ARRI Science Team was established to ensure that the methods ARRI promotes are based on proven science and research, and to guarantee the continued scientific research into forestry reclamation. The KFO ARRI Science Team member regularly provides peer reviews for academic journals and other manuscripts which are directly related to mined land reforestation.



***Figure 13. ARRI representative Chris Miller showing students proper tree planting techniques.***

### Arbor Day 2013

Tennessee's Arbor Day tree-planting event was held on April 26, 2013, at a surface mine operated by Triple H Coal Company in Campbell County, Tennessee. The event was organized by ARRI core team members from KFO, CCWF, and Triple H Coal Company.

Members from the Coal Creek Watershed Foundation recruited 78 students from local middle schools (Lake City and Wynn-Habersham Middle Schools) to plant trees and learn about mining and reforestation. An additional 23 local volunteers participated in the event. Approximately 820 tree seedlings were planted during the event, including 320 American chestnuts which were grown by students in their classroom, and 500 mixed oak species.



***Figure 14. A group of middle school students planting a bag full of mixed oak trees.***

- **Local Interagency Working Agreement (LIWA)**

On December 20, 2010, representatives from KFO, TDEC, USACE, USFWS, and EPA established a LIWA to improve interagency communication and coordination during the coal mine permitting process in Tennessee under the respective state and Federal

permitting, enforcement, and compliance reviews required by the Clean Water Act, SMCRA, and the Endangered Species Act. On September 24, the LIWA group held its second joint hearing on the proposed Apollo Fuels Surface Mine. Personnel from TDEC, EPA, USACE, and OSMRE attended the hearing. Several other public conferences were held in 2013 in response to requests by several non-government entities. The majority of these hearings result from permit renewal applications and the public comment afforded to potentially affected citizens.

- **Cost Recovery**

OSMRE proposed a rule, see March 26, 2013, Federal Register 78 FR 18429, to revise our Federal and Indian Lands Program regulations for the purpose of adjusting the existing permit fees and to assess new fees to recover the actual costs for permit administration and permit enforcement activities provided to the coal industry. In anticipation of implementing the Cost Recovery Rule during FY 2014, the KFO has instituted changes to the time codes and is developing an electronic tracking system for all permitting costs and project hours to be tracked. Changes to the time codes began in late 2011 and have enabled the KFO to estimate the amount of hours expended for cost recovery and other major cost categories. The tracking system is currently under development with the first prototype system reviewed in late 2013. The developers have received comments and suggestions for improvement and have incorporated all modifications into the latest beta version. The developers will complete revisions on the latest version in early 2014. Implementation of the final rule is anticipated in FY 2015.

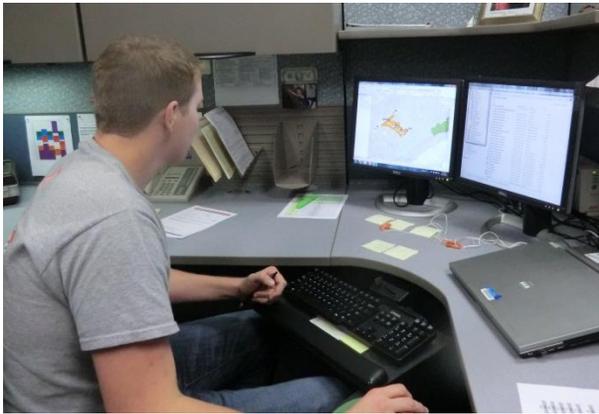
- **Endangered Species**

On October 2, 2013, the USFWS announced a proposed rule and 12-month finding in the Federal Register with possible implications to KFO and the Tennessee mining industry. The finding was on a petition to list the eastern small-footed bat (*Myotis leibii*) and the northern long-eared bat (*Myotis septentrionalis*) as endangered or threatened under the Endangered Species Act of 1973, as amended and to designate critical habitat. After reviewing the best available scientific and commercial information, the USFWS found that listing the eastern small-footed bat was not warranted but listing the northern long-eared bat was warranted. The USFWS proposes to list the northern long-eared bat as an endangered species throughout its range under the Act, but determined that critical habitat for the northern long-eared bat is not determinable at this time. The northern long-eared bat's range includes Tennessee, which is considered part of its southern population. According to the USFWS, white-nose syndrome is the most severe and immediate threat to the species persistence. Other threats include wind-energy development, winter and summer habitat destruction and disturbance, climate change, and contaminants. As such, mining in Tennessee is considered a possible threat. During 2013, KFO began to regularly receive comments and recommendations from the USFWS regarding protection and enhancement of the northern long-eared bat on new permits, permit renewals, and significant revisions.

KFO continues to work with the USFWS to monitor mining impacts on the blackside dace (*Phoxinus cumberlandensis*), Cumberland darter (*Etheostoma susanae*), Indiana bat (*Myotis sodalis*), and various mussel species and to work with applicants to formulate reclamation plans that will benefit these species.

- **Youth Initiative**

KFO employed a total of two interns during FY 2013. These interns worked in areas of geology, GIS, hydrology, and administration. The interns assisted with projects at KFO such as the: LUM Petition, Laserfische, GeoMine, and Water Quality Database. The interns also played an important role in assisting staff with various tasks such as: data entry for hydrological reviews and database development, scanning historical records, gathering information for Freedom of Information Act requests, and assisting the Technical and Inspection staffs in the field with data collection.



*Figure 15. At left, intern using GIS software to depict water monitoring locations.*



*Figure 16. At right, intern preparing water sample for analysis.*

- **Wounded Warrior Project**

KFO initiated the first OSMRE trainee through the Wounded Warrior Project. This project is designed to help veterans wounded in active duty obtain employment. This employee is currently being trained as a Program Assistant. She plans and carries out assignments to improve the efficiency of computer and data management support and provides administrative, and technical assistance to the Inspection Group. Her duties have a direct impact on the ability of KFO and related office (the Big Stone Gap Area Office) to accomplish their assigned missions.

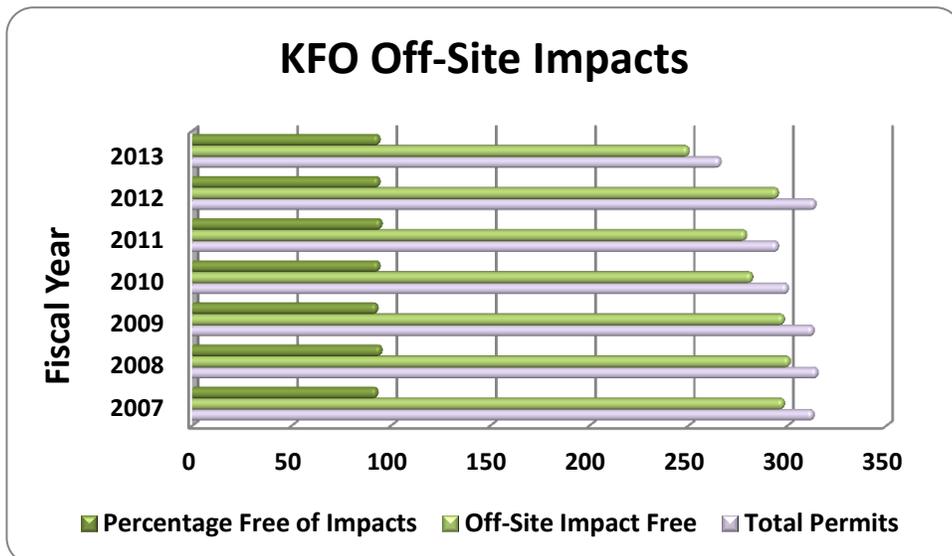
**V. SUCCESS IN ACHIEVING THE PURPOSES OF SMCRA AS MEASURED BY THE NUMBER OF OBSERVED OFF-SITE IMPACTS AND THE NUMBER OF ACRES MEETING THE PERFORMANCE STANDARDS AT THE TIME OF BOND RELEASE**

To further the concept of reporting end results, the findings from performance standard evaluations are being collected for a national perspective in terms of the number and extent of observed off-site impacts and the number of acres that have been mined and reclaimed that meet the bond release requirements for the various phases of reclamation.

- **Off-Site Impacts**

Active Sites

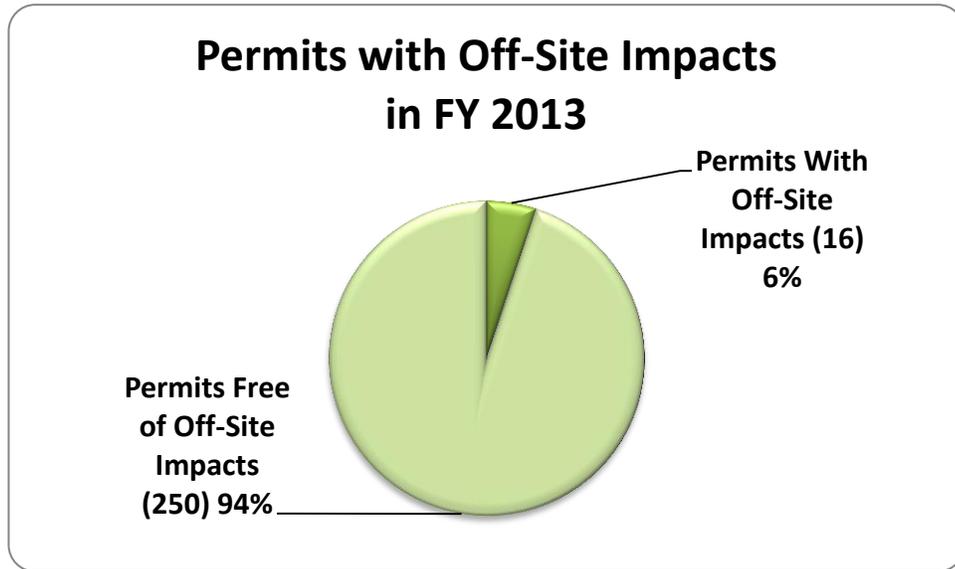
SMCRA is designed to prevent adverse impacts to the public and to environmental resources adjacent to permitted coal mining operations. While conducting complete and partial inspections during FY 2013, KFO reclamation specialists evaluated all active and abandoned mine sites on the Inspectable Units List to determine if off-site impacts had occurred. Reclamation specialists reported off-site impacts resulting from SMCRA violations via the Inspection and Enforcement Tracking System, Mine Site Inspection form. The data was then transferred to a database and a summary report was developed for year-end reporting purposes. In addition to inspection data collection, citizen’s complaint files were evaluated and interviews with reclamation specialists were conducted to determine if off-site impacts from other sources had occurred. During FY 2013, 94 percent of inspectable units (250 of 266 inspectable units) were free of off-site impacts, which is the same percentage as occurred in FY 2012.



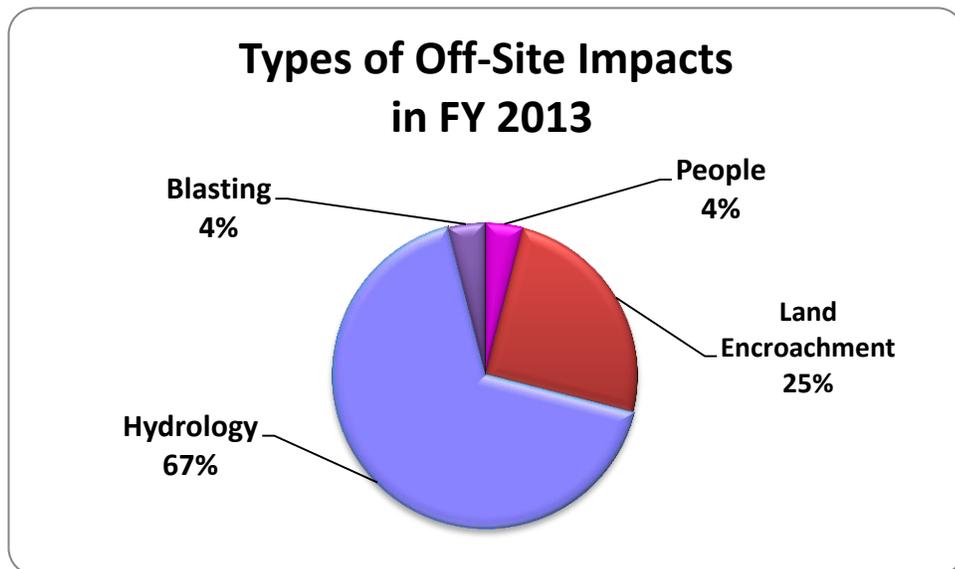
*Figure 17. KFO off-site impacts in FY 2013.*

Sixteen permits were identified as having 21 events that impacted 24 resources (people, land, water, and structures). Sixteen off-site impacts to water occurred. Eight minor and

eight moderate impacts resulted from sediment laden run-off leaving the sites or changes to water chemistry during mining. Three minor impacts and two moderate impacts to land resulted from mining disturbance, sedimentation, or erosion occurring outside the approved permit boundaries. One minor impact to people occurred when flyrock was cast off a permit area. One moderate impact to structures was reported when mud from a permitted haul road was tracked onto a public road.



*Figure 18. Permits with off-site impacts in FY 2013.*



*Figure 19. Types of off-site impacts in FY 2013.*

The majority of the violations were considered to be permittee negligence. For this reason, improvements in the regulatory functions or processes will continue to be reviewed.

### Bond Forfeiture Sites

Off-site noncompliant drainage continues to occur at four bond forfeiture sites. Various discharges from the four sites have pH levels as low as 4.0 to 5.5, iron levels as high as 10.0 mg/L, and manganese levels as high as 6.6 mg/L. During the upcoming year, KFO will evaluate options for addressing water quality issues at these sites. Options to be considered include the use of treatment trust funds or civil penalty funds to install treatment systems or implement other remedial measures.

KFO forfeited and collected the bond for three permanent program permits during FY 2012. Reclamation of all three sites, total of 102 acres, was conducted in FY 2013. Field inspections were conducted while the sites were being reclaimed in order to evaluate and report on success in achieving contracted reclamation work. There were no reported off-site impacts from these sites during FY 2013 and it is expected that the sites will be released from the IUL in FY 2014.



*Figure 20. Bond forfeiture site reclaimed in FY 2013.*

- **Reclamation Success (I&E)**

Reclamation success under SMCRA is measured by the bond release process with the ultimate goal of Phase III bond release. KFO has implemented bond release policy and procedures to ensure that all regulatory and permit requirements are completed. At each phase of bond release, a complete application is required, including a newspaper public notice, landowner notification letters, permittee certification, and bond release map. A complete bond release site evaluation and permit review is conducted at each phase of bond release with the following requirements:

- Phase I – Backfilling and grading completed, drainage control in place, temporary structures except ponds and roads removed.
- Phase II – Vegetation successfully established, all temporary structures removed, no contribution of suspended solids outside permit area, permanent ponds properly maintained.
- Phase III – All mining activity completed according to SMCRA, supporting regulations, and the permit; and vegetation established to support the approved postmining land use for full liability period and supported by statistical analysis.

KFO policy includes a complete review of the bond release application by the assigned inspector to identify deficiencies in the application or needed reclamation work on site. A hydrologic and biologic review occurs to ensure the site is not causing, or is not likely to cause, material damage outside the permit boundary. A bond review occurs to ensure the remaining bond will be sufficient for any remaining reclamation.

During the period October 1, 2012 through September 30, 2013, KFO processed 54 bond release applications. A total of 44 release actions were approved, consisting of 14 Phase I, 15 Phase II, and 15 Phase III releases. These actions resulted in KFO returning all or a portion of the bond on 6,354 acres of reclaimed mine lands (Appendix 1, Table 6).

Following the review process outlined above, two applications were returned as incomplete, no bond release applications were withdrawn, and one bond release application was disapproved during FY 2013.



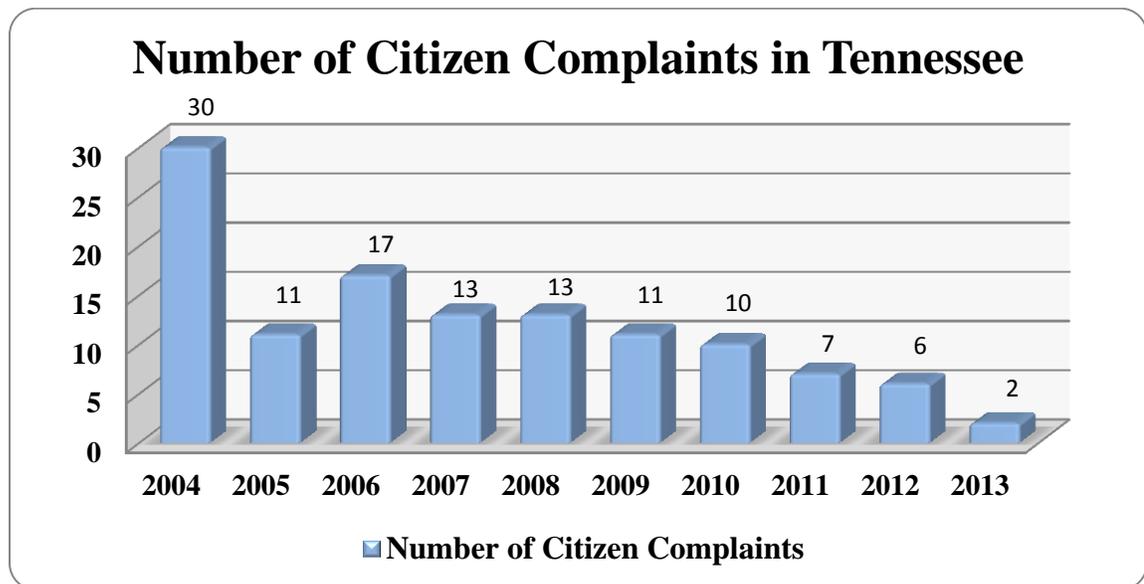
***Figure 21. Reclaimed sediment basin rehabilitated into a marsh/wetland habitat.***

- **Customer Service**

Citizen’s Request for Inspection

The regulations provide citizens the opportunity to request a Federal inspection when the citizen provides a written or oral report giving OSMRE reason to believe an unauthorized condition, practice, or violation exists which creates an imminent danger to the health or safety of the public, or is causing or could reasonably be expected to cause a significant, imminent environmental harm to land, air, or water resources. KFO is required to investigate these reports and respond to the citizen regarding the OSMRE investigation findings and associated actions within 10 days of concluding the investigation. The citizen providing the information may also request an informal review of KFO’s decisions.

KFO has experienced a decline in the numbers of citizen’s requests for inspections (citizen’s complaints) in recent years. During FY 2009, KFO received 11 requests for inspections compared to only two requests received during FY 2013 or an overall reduction of 82 percent during the past five years. KFO responded to both complaints received in FY 2013 in a timely manner.



*Figure 22. Number of citizen complaints in Tennessee from 2004 to 2013.*

Pending Litigation

***Triple H Coal LLC, Application 3184 Denial***

KFO denied Permit Application 3184 on January 9, 2013, due to the likelihood of the site to produce a postmining discharge in need of treatment. In addition, numerous versions of the toxic-material handling plan were reviewed and deemed infeasible to implement

and prevent a postmining water quality issue. On February 6, Triple H Coal, LLC filed a request for administrative review of OSMRE's decision to deny issuance of Permit Application 3184. In their appeal, Triple H contends that OSMRE's actions are ". . . arbitrary, capricious, an abuse of discretion, not supported by evidence, and is contrary to law and regulation." On July 25, 2013, the OSMRE KFO received responses to the first set of interrogatories from counsel for Triple H. An August 2014 trial date has been set.

***Endangered Species Act Lawsuit (Defenders of Wildlife v. Jewell, E.D. TN)***

On May 16, 2013, four environmental groups sued OSMRE and USFWS in U.S. District Court in Nashville, Tennessee over alleged harm to two species listed under the Endangered Species Act (ESA), the threatened blackside dace and the endangered Cumberland darter. The suit alleges take of the species is being caused by high-conductivity wastewater from two surface mines and that OSM and USFWS have violated the ESA by not undertaking formal consultation under Section 7 of the ESA on each mining permit. The Complaint also asserts that the 1996 Biological Opinion by USFWS on the SMCRA regulatory program is invalid and that OSM must reinstate formal consultation on the SMCRA program.

In June 2013, OSMRE and USFWS met with an Office of the Solicitor attorney to determine steps forward. The meeting focused on reviewing and revising the current ESA Standard Operating Procedure (SOP) used by Federal and state entities involved in reviewing coal mining permits in Tennessee. On August 6, 2013, OSMRE met with USFWS to discuss the status of the agreements the agencies made in a joint response to the Notice of Intent to Sue that preceded the lawsuit, to review and discuss the permitting process in Tennessee with respect to ESA-listed species, and to ensure use of the best available science and technology in the permitting process. A smaller technical group was formed to evaluate and resolve any technical issues related to revising the application review process. On November 26, 2013, the judge granted DOJ's motion to change the venue from the Middle District of Tennessee to the Eastern District. The Eastern District subsequently set a scheduling conference for June 27, 2014.

***Mountainside Coal Co., Permit 3110 Bond Release Denial***

On September 5, 2013, KFO received a notice from the Office of Hearings and Appeals that Mountainside Coal Company had appealed KFO's bond release denial of August 16, 2013. The appeal stems from a denial of the phase 1, 2, and 3 bond release request for bond increment 3 due to evidence of postmining water quality in need of treatment. Numerous water quality violations at several ponds have been recorded in recent years. The plaintiffs allege the bond release for increment 3 is not a factor in the pollutional discharges present on the site. The site is on the Tennessee AMD list. KFO will further evaluate the site and request Mountainside begin developing the necessary treatment system designs to ensure treatment in perpetuity. A hearing date has not been set.

***Davis Creek Energy LLC, Permit 3207, Revision 17 Denial***

KFO received notice on August 16, 2013 from the Office of Hearing and Appeals that Davis Creek Energy, LLC had appealed the permit revision 17 denial. Permit revision 17

requested to change the status of Pond 005 from temporary to permanent. The denial was based on several key facts: 1) The highwall was created to facilitate mining and pond creation; 2) The highwall is 60 to 70 feet high and poses a postmining danger to humans and wildlife; 3) The approved reclamation plan included elimination of the highwall and pond. No hearing date has been set.

## **Notice of Intent to Sue**

### ***Crossville Coal, Inc, Turner Surface Mine, Permit 3189/3190***

KFO received notice on September 12, 2013 that the Sierra Club and SOCM intend to file a lawsuit against Crossville Coal, Inc. alleging numerous National Pollution Discharge Elimination System (NPDES) water quality violations at nine outfalls. The groups also allege elevated concentrations of several parameters in the receiving streams down gradient of the site. The groups cite violation of 30 CFR 816.41 and 816.42 with respect to the numerous water quality violations.

KFO previously identified the problem with elevated down gradient parameters and NPDES violations and took steps to alleviate the issue. KFO entered into a settlement agreement with Crossville in January 2009, requiring significant permit modifications. The settlement agreement required Crossville to immediately reclaim the surface mine site, develop a reclamation time table, develop and install a treatment system capable of treating water accumulating in the surface pits, and establish a single bond to cover the overlapping surface and underground mines (\$3.9 million). The company is making steady progress. It is expected that reclamation will be complete in 2014 and will alleviate the current water quality issues.

## **VI. TECHNICAL ASSISTANCE**

KFO continues to have a number of its employees, primarily the Technical Group staff, serving on different projects, teams, and assignments that are of common interest to the Appalachian Region and to all of OSMRE. Several of these technical assistance activities are cooperative efforts with the Program Support Division within the Appalachian Region. During FY 2013, the Technical Group spent approximately 78 percent of their total time doing direct permitting activities with 22 percent of this time considered cost recoverable under the proposed rule. The projects and activities, which involve KFO employees, are as follows:

- National Blasting Work Group;
- Instructors for National Technical Training Program Training Courses and for Technical Innovation and Professional Services or “TIPS” Training Courses;
- Appalachian Regional Reforestation Initiative;
- Stream Protection Rule and the associated Environment Impact Statement;
- Technical support to OSMRE’s Lexington and Charleston Field Offices for oversight and Federal Lands issues;
- Technical support to Bureau of Land Management on Federal Lands issues such as leasing and National Environmental Policy Act requirements;

- Technical support for joint OSMRE/State initiative to apply geospatial technology in implementation of the SMCRA regulatory program;
- Dam Safety Team;
- Impoundments Team;
- NCWMA LUM Petition;
- Cost Recovery Rule implementation;
- Internal Control Reviews – Bonding, Federal Program;
- GeoMine.

## ABANDONED MINE LAND RECLAMATION

### I. GENERAL

#### A. Introduction

The Tennessee Abandoned Mine Land (AML) program receives Federal funding under the 2006 SMCRA (Surface Mining Control and Reclamation Act of 1977) amendment. These changes authorized the state of Tennessee to receive minimum program funding for their approved state reclamation program. The Tennessee Department of Environment and Conservation (TDEC), Land Reclamation Section is the state agency responsible for receiving such AML funds and implementation of the approved Tennessee Abandoned Mine Land Reclamation Plan. Tennessee’s AML program is “uncertified” in that TDEC has not certified under Section 411(a) of SMCRA that reclamation of all eligible coal mining problems have been completed. Since Tennessee has the authority to manage the AML program, the primary role of the Office of Surface Mining Reclamation and Enforcement (OSMRE) is to:

- Monitor TDEC’s compliance with the requirements of its approved AML reclamation plan, SMCRA, applicable 30 CFR regulations, grant requirements, applicable 43 CFR regulations, and applicable Office of Management and Budget circulars governing financial management;
- Assess TDEC’s progress in addressing problems identified in its Electronic Abandoned Mine Land Inventory System (e-AMLIS);
- Ensure TDEC maintains its capability to fulfill SMCRA responsibilities,
- Assist TDEC in implementing its responsibilities;
- Report on the evaluation of TDEC’s program;
- Work with TDEC to resolve, in a reasonable and timely manner, program and implementation issues identified through oversight; and
- Pursue corrective actions provided by SMCRA, Federal rules, and OSMRE policy if TDEC is not meeting program requirements.

The following acronyms are used in this report:

AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System

e-AMLIS	Electronic Abandoned Mine Land Inventory System
ESA	Endangered Species Act
ARCC	Appalachian Regional Coordinating Center
ATP	Authorization to Proceed
FY	Fiscal Year
EY	Evaluation Year
GIS	Geographical Information System
GPRA	Government Performance and Results Act
KFO	Knoxville Field Office
NEPA	National Environmental Policy Act
OSMRE	Office of Surface Mining Reclamation and Enforcement
SMCRA	Surface Mining Control and Reclamation Act of 1977
TDEC	Tennessee Department of Environment and Conservation
TIPS	Technical Innovation and Professional Services

## **B. Program Administration**

Based on 2006 SMCRA amendments, Tennessee was required to amend their AML program to reflect statutory, regulatory, policy, procedural, and organizational changes that have occurred since 1984, when the State’s AML program amendment was withdrawn. A new program amendment was submitted to OSMRE by TDEC on April 5, 2011, and was included in the Federal Register, (“Tennessee Abandoned Mine Land Program, Proposed Rule”, 77 FR 5740, February 6, 2012.). The program amendment was published in the Federal Register in February 2013.

For each proposed AML construction project, TDEC submits to OSMRE an environmental document package that includes an environmental document, AML eligibility statement, applicable supplemental information, National Environmental Policy Act (NEPA) consultation correspondence, and a new or updated Problem Area Description, if needed. TDEC will also submit an e-AMLIS printout showing the AML features as “unfunded” and the estimated budget for the project. Additional details on OSMRE’s e-AMLIS are found in Section III.

TDEC manages its program in a cost effective and efficient way. All projects comply with applicable laws and regulations, are well designed and constructed using the best technology available, and are completed with minimal disturbance to the environment. All projects are monitored to ensure projects meet contract specifications, project objectives, and program goals.

## **II. NOTEWORTHY ACCOMPLISHMENTS**

In Fiscal Year (FY) 2013, TDEC reclaimed AML features through construction contracts and joint ventures with land owners in accordance with State and Federal law. TDEC reclaimed safety hazards that provided beneficial land reclamation to the community as well as the landowner. TDEC worked with other government agencies and private organizations to leverage additional funding for pollution abatement from mine drainage. Although small in comparison to surrounding states, Tennessee has a diverse and effective AML program. Since 2001,

TDEC's AML reclamation program has expended approximately \$15 million in reclaiming over 1,129 Government Performance and Results Act (GPRA) acres while reducing the number at risk by AML hazards by approximately 4,000 people.

### **A. Overall Performance for FY 2013**

#### **Federal AML Program:**

- Completed reclamation of Crab Mountain Landslide (12/05/12 - \$249,470 – 10 ac)
- Completed tree planting project on six reclaimed sites (01/16/13 - \$64,480 – 403 ac)
- Completed reclamation of Roseanne Ellis site (07/10/13 - \$337,328 – 23 ac)
- Completed reclamation of Grave Hill Church Landslide (07/19/13 - \$47,398 – 1.4 ac)
- Completed construction of Stinking Creek II Waterline extension (08/09/13 - \$418,631 – 20 residences)

#### **Ongoing Federal AML Program Project**

- Wolf Ridge Gob Pile (completed 10/18/13 - \$262,599 – 5 ac & 24,424 cubic yards)
- Bellview 2 Project (completed 10/29/13 - \$789,284 – 85 ac)

#### **State AML Program:**

- Timesville VO – mine subsidence under driveway (completed 01/09/13 - \$2,511)
- Cunningham mine subsidence – took out above ground pool next to residence (08/02/13 - \$4,997)
- Gloria Goad repair and mine closure (10/21/13 - \$9,475)



*Figure 23. Images of Crab Mountain Landslide Reclamation Project.*

### **III. UTILIZATION OF OSMRE TECHNOLOGICAL ASSISTANCE**

TDEC utilized Technical Innovation and Professional Services (TIPS) courses in FY 2013 by completing three distance learning classes: Intro to GIS for Mining & Reclamation (two people)

and Galena Slope Stability (one person); and have registered for two ESRI Light Detection and Ranging classes with TIPS assistance for 2014.

TDEC requested TIPS provide a Geographical Information System (GIS) handheld device for field work. TIPS is still working on TDEC's request and hopes to fulfill the request as soon as the FY 2014 budget is finalized.

#### **IV. PUBLIC PARTICIPATION AND OUTREACH**

OSMRE's March 28, 2013, Directive AML-22, Evaluation of State/Tribe AML Programs, establishes policies, procedures, and responsibilities for monitoring, assisting, and evaluating state/tribe AML Programs. OSMRE's monitoring or oversight of state/tribe AML Programs serves to provide information, assistance, and feedback to states/tribes, OSMRE, and the public to ensure the purposes and goals of the AML program are being responsibly, efficiently, and effectively met.

OSMRE continues to improve oversight of state programs, to maximize opportunities for public participation and make oversight-related information more available to the public. OSMRE's website, located at <http://www.arcc.OSMRE.gov/FOs/KFO/KFO.shtm>, contains information for public use and a link to TDEC. In addition to contact information, there is general information on the website about OSMRE's and TDEC's mission and program. The website gives the public immediate information regarding TDEC's Regulatory and AML programs.

OSMRE solicited comments from the public and Federal and state agencies on the EY 2013 State/Federal Performance Agreement and Reclamation Plan. A copy of the agreement was placed on the OSMRE webpage and a 30-day comment period began. All comments were considered during finalization of the plan and performance agreement. The Tennessee Historical Commission requested that OSMRE and TDEC take into consideration the proposed project's effect on historic properties and archaeological sites through a NEPA cultural resources review and Section 106 compliance of the National Historic Preservation Act. TDEC and OSMRE assured the Commission that OSMRE followed the NEPA process as part of standard procedures. The Commission had no further concerns. Through the EY 2013 Performance Agreement, signed July 1, 2013, OSMRE and TDEC will continue to provide outreach to industry and citizens concerned about abandoned mine lands. A signed copy of the agreement can be found at <http://www.arcc.osmre.gov/about/states/tn.shtm>.

#### **V. RESULT OF FY 2013 REVIEWS**

OSMRE reviewed all projects seeking authorization to proceed (ATP) for FY 2013 and concluded that TDEC managed Federally funded AML projects in accordance with Tennessee's approved AML program and the approved plan.

The Land Reclamation Section of TDEC was awarded an AML grant for the period March 1, 2012, to February 28, 2015, in the amount of \$2,847,455 with subaccounts for \$27,825

administrative costs; \$1,276,727 in non-water supply project costs; \$1,020,000 in water supply project costs; and \$522,903 in acid mine drainage (AMD) set-aside costs.

OSMRE will conduct a review of TDEC drawdowns and disbursements of OSMRE grant funding in early 2014. The review will include drawdowns occurring during Fiscal Years 2011, 2012, and 2013.

### ***AML Program Management***

KFO reviewed TDECs completed projects for FY 2013 and concluded that TDEC:

- Obtained construction rights of entry from all known property owners.
- Conducted required OSMRE Applicant Violator System (AVS) checks to verify that contractors are not barred from receiving contracts prior to issuing the contract in all cases sampled.
- Obtained completed contractor affidavits certifying all materials used in construction met the technical specification standards before approving payment for work performed.
- Initiated and completed the NEPA consultation process.
- Obtained permits required pursuant to NEPA consultation and ensured all permits were obtained prior to project construction.
- Obtained OSMRE approval to add AML features to the project work scope.
- Documented AML project construction in inspection reports from project start through project release.
- Abated all AML hazard features included in the construction contracts.
- Required use of non-invasive revegetation species included on the list agreed upon by State and Federal agencies for use on all AML projects.
- Entered AML feature units and costs data into the e-AMLIS in a timely manner.
- Tracked administrative processes from start through their completion (such as the bid process, realty work, and e-AMLIS data entry), and captured data to support OSMRE data reporting (e.g., recording people no longer at risk).

The revised Directive AML-1 requires OSMRE approval to add any new Priority 1, 2, or 3 coal problem feature to e-AMLIS or to elevate a Priority 3 coal problem to a higher priority. TDEC's AML Manager notified AML staff to be aware of the new requirements of the revised December 12, 2012, OSMRE Directive AML-1, when preparing AML project documents. OSMRE also requires a signed eligibility statement for OSMRE approval and the approved features must be entered into e-AMLIS prior to reclamation for additional features found during project construction.

### ***AMD Set-Aside***

AML funds are authorized by SMCRA to address remediation of AMD emanating from eligible abandoned mining operations and to pay for costs associated with program administration, planning, design, construction, and construction monitoring. The total amount of grant funds Tennessee transferred to its state AMD set-aside program account is \$522,903 for the FY 2013 grant. Tennessee's set-aside remains in account collecting interest.

The set-aside funding will be used to leverage matching funds from other agencies whenever possible in order to address abandoned mine land AMD problems emanating from the Tennessee coalfields. The funds are maintained in a separate interest-bearing Tennessee Surface Mine Reclamation Fund account established under Tennessee Code 59-8-326 which is dedicated to receive AMD set-aside funds in accordance with 402 (g)(1)(D) of the Act and 30 CFR 876.12 and are used solely for AMD reclamation.

### ***AML Water Supply Projects***

TDEC provides AML funding for water supply projects that are administered by local county government public service authorities. AML funds are combined with funding from other Federal and State sources in order to generate sufficient funding to establish efficient, safe, and potable water supplies to households in various coalfield communities. The projects provide municipal domestic water supplies to areas where private domestic water supplies, such as dug or drilled wells or springs, have been impacted by pre-SMCRA coal mining operations. Other Federal, State, and local governmental funding are used to fund non-AML impacted areas of a larger water supply project. AML funds a portion of the cost of these water replacement projects based on the mining impacts found in ground-water quality studies. The funds are most commonly used to install water storage tanks, booster pump stations, and extend or enhance existing water trunk lines and water facilities serving AML impacted areas. The projects improve the overall quality of life and welfare for persons living in coalfield communities. Failed/contaminated water sources and wells can be abandoned for the safe and reliable water service provided by the public service authority system extensions. The projects are compatible with comprehensive area-wide development plans. The waterlines also provide fire protection to all areas along the distribution lines and all residences in the involved communities.

During FY 2013, TDEC requested ATP on two waterline projects: Stinking Creek Phase II Waterline Extension Project and Jellico Waterline Replacement Project.

The Stinking Creek Phase II Waterline Extension Project is located in Campbell County, TN in the upper reaches of the Clear Fork of the Cumberland watershed. The project involved the extension of the public water system in order to provide safe, potable, and reliable water to 12 households and two businesses in the area by adding 10,000 feet of waterline. This project was funded from the FY 2012 grant and expended \$418,631.

The Jellico Waterline Replacement Project is located in Jellico in Campbell County, TN. The project will involve replacing 5,000 feet of asbestos cement and galvanized waterline, replacing 16 existing gate valves, and replacing a pressure valve serving the northeastern portion of Jellico's water system. The project will provide safe, potable, and reliable water to 350 households and businesses. The project will utilize \$350,000 of FY 2012 grant monies. AML funding allowed the City of Jellico to leverage \$500,000 Appalachian Regional Commission grant which eliminated the need for additional AML funding.

### ***Non-Water Supply Projects***

During this fiscal year, TDEC submitted to OSMRE three non-water projects: Cherry Branch III Reclamation Project, Grave Hill Landslide Reclamation Project, and Wolf Ridge Gob Pile Reclamation Project.

Cherry Branch III Reclamation Project will reclaim 2,150 linear feet of Priority 2 (P2) dangerous highwall, four P2 hazardous water bodies, 4,750 linear feet of Priority 3 (P3) highwall, seven P3 pits, and 53 acres of P3 spoil area. TN AML will utilize approximately \$877,000 from the FY 2011 grant.

Grave Hill Landslide Reclamation Project consisted of stabilizing a landslide emanating from behind a church along an old AML haulroad and regrading to add drainage control measures. The project is located in Anderson County, TN. TDEC requested funding from the FY 2011 AML grant of \$47,398 and completed construction on July 19, 2013.

Wolf Ridge Gob Pile Reclamation Project consisted of eliminating one acre of P1 Dangerous Piles or Embankments and one P1 Portal. The project area consisted of a barren refuse pile and nearby highwall located on a heavily traveled recreational vehicle trail. The gob pile was over 60 feet high making the site very dangerous. P3 reclamation was the removal of 1,000 linear feet of highwall, two acres of pits, and one acre of spoil area. AML funding came from the FY 2010 AML grant with an amount of \$262,599. The project was completed on October 18, 2013.

As a result of TN AMLs hard work and dedication, a total of 208 GPRA acres were reclaimed, 82 people received potable water, and 330 people are no longer exposed to potential safety risks from abandoned mine lands.

### ***Electronic AML Inventory System (e-AMLIS)***

OSMRE's e-AMLIS tracks, nationally, all AML inventory and accomplishments in reclaiming the inventory. TDEC has direct access to the e-AMLIS, which allows them to routinely update AML problem data in the system. OSMRE's December 12, 2012, revised Directive AML-1, Abandoned Mine Land Inventory, implements program changes and modifications brought about by the Tax Relief and Health Care Act of 2006, which included the 2006 SMCRA amendments. The revised Directive also reflects changes of the OSMRE e-AMLIS. States and tribes are responsible for implementing procedures consistent with OSMRE's Directive AML-1 to maintain the Inventory for their state/tribe.

TDEC must enter into the e-AMLIS all required supporting documentation to meet the requirements for completing a Program Area Description since the use of paper forms was eliminated by OSMRE's Directive AML-1. A complete submission includes the information entered into the e-AMLIS data fields, Priority Documentation Forms, cost information, maps, and any supporting narrative. The revised Directive requires OSMRE's approval to add any new Priority 1, 2 or 3 coal problem feature to e-AMLIS or to elevate a Priority 3 coal problem to a higher priority. It also requires a signed eligibility statement for OSMRE approval and the approved features must be entered into e-AMLIS prior to reclamation for additional features found during project construction. TDEC advised its AML staff of the requirements of the revised Directive. The e-AMLIS allows TDEC and local OSMRE management to process new

AML problems and update existing problems in a quicker and more streamlined manner, promoting accuracy and facilitating OSMRE's ATP approval process.

**Knoxville Field Office  
Annual Evaluation Report  
Fiscal Year 2013**

**APPENDIX 1**

**Summary of Core Data to Characterize the Regulatory Program**

The following tables and charts present data pertinent to mining operations and Federal regulatory activities within Tennessee and Georgia. Unless otherwise specified, the reporting period for the data contained in the tables is October 1, 2012, through September 30, 2013. Additional data used by KFO in its evaluation of performance is available for review in the evaluation files maintained by the KFO.

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## Summary of Core Data to Characterize the Regulatory Program (Continued)

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Chart 10A	KFO Inspection Activity in Georgia (2011-2013)
Table 10A	KFO Inspection Activity in Georgia (2011-2013)
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Table 12B	Lands Unsuitable Acres Declared Unsuitable (2011-2013)

TABLE 1

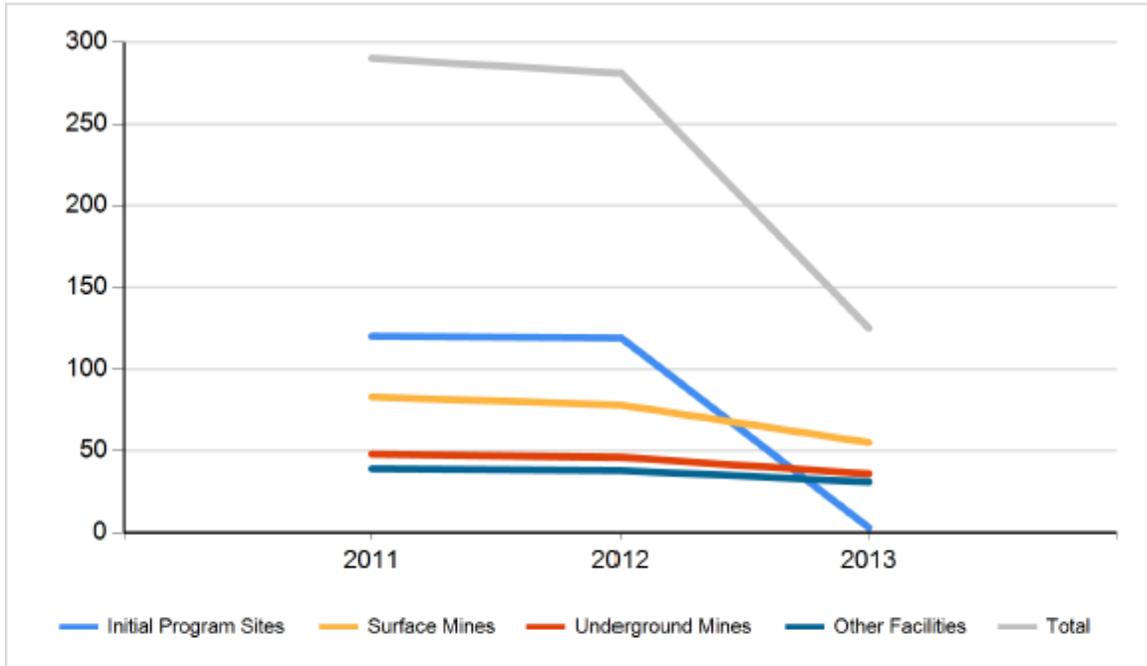
<b>COAL PRODUCED FOR SALE , TRANSFER, OR USE <sup>A</sup></b>			
<small>(Millions of short tons)</small>			
<b>Calendar Year</b>	<b>Surface Mines</b>	<b>Underground Mines</b>	<b>Total</b>
2010	1.2	0.6	1.8
2011	1.0	0.4	1.4
2012	0.6	0.6	1.2

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

TABLE 2

PERMANENT PROGRAM PERMITS, INITIAL PROGRAM SITES, INSPECTABLE UNITS, AND EXPLORATION														
Mines and Other Facilities	Numbers of Permanent Program Permits and Initial Program Sites								Insp. Units <sup>1, 2</sup>	Area in Acres <sup>3</sup>				Total Area
	Permanent Program Permits				Initial Program Sites					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	40	7	8	55	2	0	0	2	57	201	22,578	0	138	22,917
Underground Mines	19	11	6	36	0	0	0	0	36	161	1,081	0	0	1,242
Other Facilities	17	13	1	31	1	0	0	1	32	0	1,614	0	0	1,614
<b>Total</b>	<b>76</b>	<b>31</b>	<b>15</b>	<b>122</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>143</b>	<b>362</b>	<b>25,273</b>	<b>0</b>	<b>138</b>	<b>25,773</b>
Permanent Program Permits and Initial Program Sites (Number on Federal Lands: 5)				Total Number:		125		Average Acres per Site:				206.18		
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):				Total Number:		1.00		Average Acres per IU:				206.18		
Permanent Program Permits in Temporary Cessation:				Total Number:		18		Number More than 3 Years:				11		
<b>EXPLORATION SITES</b>				<b>Total Number of Sites</b>				<b>Sites on Federal Lands<sup>4</sup></b>				<b>Exploration Inspectable Units</b>		
Exploration Sites with Permits:				0				0				0		
Exploration Sites with Notices:				18				0				18		
<sup>1</sup> 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. <sup>2</sup> Total Inspectable Units calculation includes Exploration Sites Inspectable Units <sup>3</sup> 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. <sup>4</sup> The number of Exploration Sites on Federal lands includes sites with exploration permits or notices any part of which is regulated by the state under a cooperative agreement or by OSM pursuant to the Federal Lands Program, but excludes exploration sites that are regulated by the Bureau of Land Management														

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



**TABLE 2A**

NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2011	120	83	48	39	290
2012	119	78	46	38	281
2013	3	55	36	31	125

Most Initial Program sites were released during FY 2013. Many of the sites were released because they had become successfully vegetated. Also, a total of fifty Initial Program abandoned sites were transferred to the state of Tennessee because they were eligible for AML funding.

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 <sup>3</sup>				Total Area
	Permanent Program Permits				Initial Program Sites				Permanent Program Permits (Permit Area)		Initial Program Sites				
	Active	Inactive	Abandoned	Total	Active	Inactive	Abandoned	Total	Insp. Units <sup>1</sup>	Federal Lands	State/Tribal and Private Lands	Federal Lands	State/Tribal and Private Lands		
Surface Mines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Underground Mines	0	0	0	0	0	0	1	1	1	0	0	0	10	10	
Other Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>	
Permanent Program Permits and Initial Program Sites (Number on Federal Lands: 0)				Total Number:				1		Average Acres per Site:				10.00	
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):				Total Number:				1.00		Average Acres per IU:				10.00	
Permanent Program Permits in Temporary Cessation:				Total Number:				0		Number More than 3 Years:				0	
<b>EXPLORATION SITES</b>				Total Number of Sites				Sites on Federal Lands <sup>4</sup>				Exploration Inspectable Units			
Exploration Sites with Permits:				0				0				0			
Exploration Sites with Notices:				0				0				0			

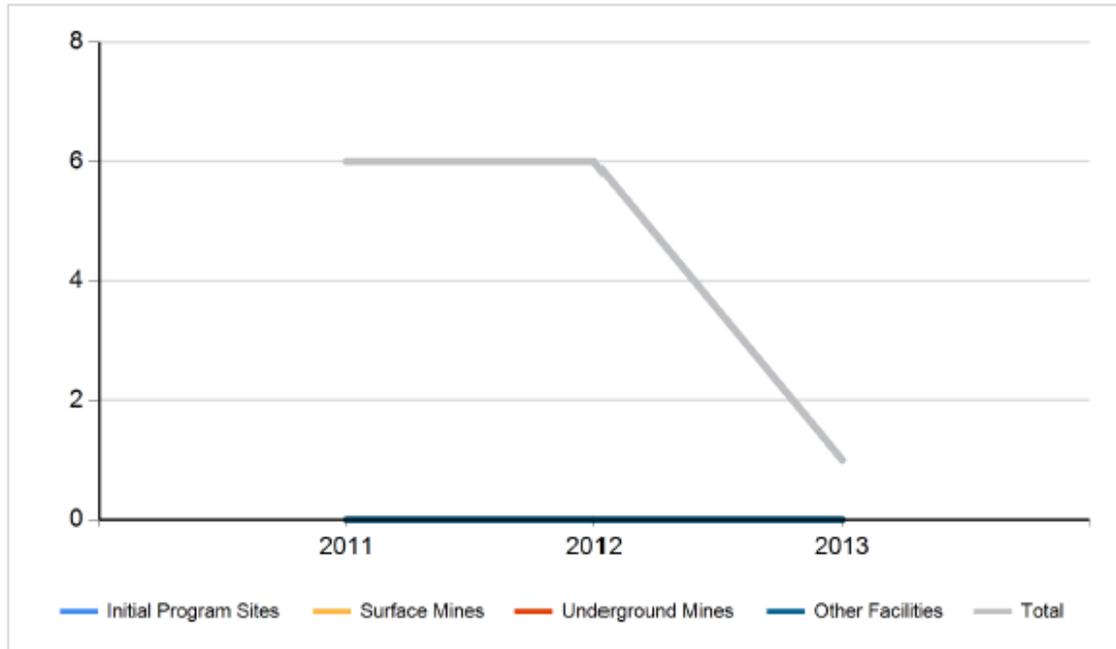
<sup>1</sup>An Inspectable Unit may include multiple small and neighboring Permanent Program Permits or Initial Program Sites that have been grouped together as one Inspectable Unit, or conversely, an Inspectable Unit may be one of multiple Inspectable Units within a Permanent Program Permit.

<sup>2</sup>Total Inspectable Units calculation includes Exploration Sites Inspectable Units

<sup>3</sup>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.

<sup>4</sup>The number of Exploration Sites on Federal lands includes sites with exploration permits or notices any part of which is regulated by the state under a cooperative agreement or by OSM pursuant to the Federal Lands Program, but excludes exploration sites that are regulated by the Bureau of Land Management

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



**TABLE 2A**

NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	Initial Program Sites	Permanent Program Permits			Total
		Surface Mines	Underground Mines	Other Facilities	
2011	6	0	0	0	6
2012	6	0	0	0	6
2013	1	0	0	0	1

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

TABLE 4

PERMITTING ACTIVITY												
Type of Application	Surface Mines			Underground Mines			Other Facilities			Totals		
	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres <sup>1</sup>	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres
New Permits	3	0	0	0	0	0	0	0	0	3	0	0
Renewals	5	1		2	1		3	2		10	4	
Transfers, sales, and assignments of permit rights	6	0		1	0		3	0		10	0	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										0	0	
Exploration notices <sup>2</sup>											8	
Revisions that do not add acreage to the permit area	45	27		5	4		7	7		57	38	
Revisions that add acreage to the permit area but are not incidental boundary revisions	0	0	0	0	0	0	0	0	0	0	0	0
Incidental boundary revisions	4	6	11	1	2	24	0	0	0	5	8	35
<b>Totals</b>	<b>63</b>	<b>34</b>	<b>11</b>	<b>9</b>	<b>7</b>	<b>24</b>	<b>13</b>	<b>9</b>	<b>0</b>	<b>85</b>	<b>58</b>	<b>35</b>
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:	1,931.0	
Permits in temporary cessation							Notices received:	1		Terminations:	3	
Midterm permit reviews completed							Number:	16				
<sup>1</sup> Includes only the number of acres of proposed surface disturbance <sup>2</sup> State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.												

TABLE 5

OFF-SITE IMPACTS  
EXCLUDING BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	1	1	0	0	1	0	0	0	0	0	0	0	0
Land Stability	4	0	0	0	1	2	1	0	1	0	0	0	0
Hydrology	15	0	0	0	1	0	0	8	7	0	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	1	0	0	0	0	0	0	0	0	0	0	1	0
<b>Total</b>	<b>21</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>

Total Number of Inspectable Units<sup>1</sup>: 263  
 Inspectable Units with one or more off-site impacts: 16  
 Exploration Inspectable Units with one or more off-site impacts<sup>2</sup>: 0  
 Inspectable Units free of off-site impacts: 247 % of Inspectable Units free of off-site impacts<sup>4</sup>: 94

<sup>1</sup> 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

<sup>2</sup> 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	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrology	0	0	0	0	0	0	0	0	0	0	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Total Number of Inspectable Units<sup>3</sup>: 3  
 Inspectable Units with one or more off-site impacts: 0  
 Inspectable Units free of off-site impacts: 3 % of Inspectable Units free of off-site impacts<sup>4</sup>: 100

<sup>3</sup> 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	1	0	0	1	0	0	0	0	0	0	0	0
Land Stability	4	0	0	0	1	2	1	0	1	0	0	0	0
Hydrology	15	0	0	0	1	0	0	8	7	0	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	1	0	0	0	0	0	0	0	0	0	0	1	0
<b>Total</b>	<b>21</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>
Total Number of Inspectable Units <sup>5</sup> :		266											
Inspectable Units with one or more off-site impacts:		16											
Exploration Inspectable Units with one or more off-site impacts:		0											
Inspectable Units free of off-site impacts:		250											
										% of Inspectable Units free of off-site impacts <sup>4</sup> :		94	
<sup>4</sup> % 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.													
<sup>5</sup> 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.													

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	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	0	0	0	0	0	0	0	0	0	0	0	0	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
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total Number of Inspectable Units <sup>1</sup> :				6									
Inspectable Units with one or more off-site impacts:				0									
Exploration Inspectable Units with one or more off-site impacts <sup>2</sup> :				0									
Inspectable Units free of off-site impacts:				6									
										% of Inspectable Units free of off-site impacts <sup>4</sup> :		100	
<sup>1</sup> 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													
<sup>2</sup> 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	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrology	0	0	0	0	0	0	0	0	0	0	0	0	0
Encroachment	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total Number of Inspectable Units <sup>3</sup> :				0									
Inspectable Units with one or more off-site impacts:				0									
Inspectable Units free of off-site impacts:				0									
										% of Inspectable Units free of off-site impacts <sup>4</sup> :		0	
<sup>3</sup> 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	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	0	0	0	0	0	0	0	0	0	0	0	0	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
<b>Total</b>	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Number of Inspectable Units <sup>5</sup> :				6									
Inspectable Units with one or more off-site impacts:				0									
Exploration Inspectable Units with one or more off-site impacts:				0									
Inspectable Units free of off-site impacts:				6									
										% of Inspectable Units free of off-site impacts <sup>4</sup> :		100	
<sup>4</sup> % 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.													
<sup>5</sup> 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.													

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		
1,118		512			646	Phase I	2,276
	337			1,810		Phase II	2,147
			1,931			Phase III	1,931
Number of Permanent Program Permits with Jurisdiction Terminated Under Phase III Bond Release During the Evaluation Year					7	Other Releases - Acres	
Initial Program Sites with Jurisdiction Terminated During the Evaluation Year					116	Administrative Adjustments	0
Number of Inspectable Units Removed					123	Bond Forfeiture	0
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			32
Total Area Bonded for Disturbance	21,707	19,808	(1,899)
Area Bonded for Disturbance without Phase I Bond Release	19,479	16,135	(3,344)
Area Bonded for Disturbance for which Phase I Bond Release Has Been Approved	3,536	2,258	(1,278)
Area Bonded for Disturbance for which Phase II Bond Release Has Been Approved	2,609	2,147	(462)
Area Bonded for Disturbance with Bonds Forfeited During Evaluation Year			0
Area Bonded for Remining	0	0	0
Areas of Permits Disturbed by Surface Coal Mining and Reclamation Operations			
Disturbed Area	17,402	16,023	N/A

TABLE 7

<b>BOND FORFEITURE ACTIVITY (Permanent Program Permits)</b>			
<b>Bond Forfeiture and Reclamation Activity</b>	<b>Number of Sites</b>	<b>Dollars</b>	<b>Acres</b>
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) <sup>1</sup>	3		175
Sites with bonds forfeited and collected during the current Evaluation Year	0	0	0
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	0		0
Sites with bonds forfeited and collected that were un-reclaimed at the end of the current Evaluation Year <sup>1</sup>	3		175
Sites with bonds forfeited but un-collected at the end of the current Evaluation Year	0		0
<b>Forfeiture Sites with Long-Term Water Pollution</b>			
Bonds forfeited, lands reclaimed, but water pollution is still occurring	4		
Bonds forfeited, lands reclaimed, and water treatment is ongoing	0		
<b>Surety/Other Reclamation Activity In Lieu of Forfeiture</b>			
Sites being reclaimed by surety/other party at the start of the current Evaluation Year (i.e., the end of previous Evaluation Year) <sup>2</sup>	0		0
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 <sup>3</sup>	0		0
Sites being reclaimed by surety/other party at the end of the current Evaluation Year <sup>2</sup>	0		0
<sup>1</sup> Includes data only for those forfeiture sites not fully reclaimed.			
<sup>2</sup> Includes all sites where surety or other party has agreed to complete reclamation and the site is not fully reclaimed.			
<sup>3</sup> 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.			

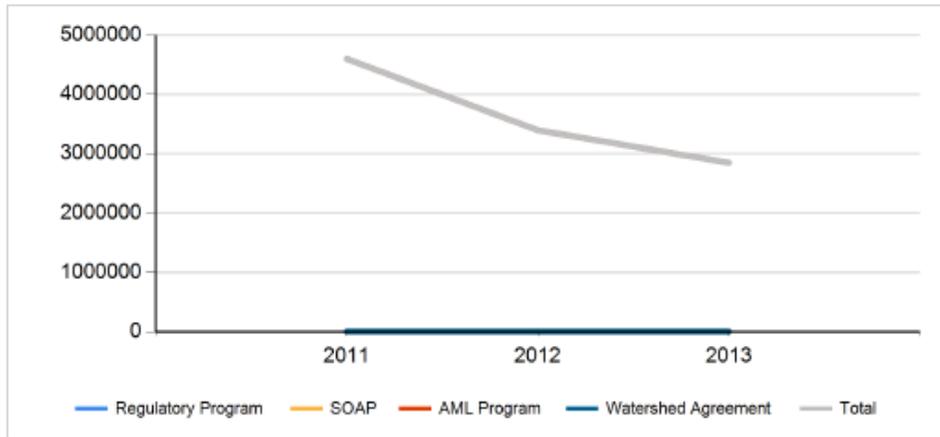
TABLE 8

REGULATORY AND AML PROGRAMS STAFFING	
Function	Number of FTEs
<b>Regulatory Program</b>	
Permit Review and Maintenance	9.00
Inspection	8.00
Other (supervisory, clerical, administrative, fiscal, personnel, etc.)	11.00
<b>Regulatory Program Total</b>	<b>28.00</b>
<b>AML Program Total</b>	<b>1.00</b>
<b>TOTAL</b>	<b>29.00</b>

TABLE 9

<b>FUNDS GRANTED TO STATE OR TRIBE BY OSM</b> <b>(Actual Dollars Rounded to the Nearest Dollar)</b>			
<b>Type of Funding</b>	<b>Federal Funds Awarded</b>	<b>Total Program Cost</b>	<b>Federal Funds Awarded as a Percentage of Total Program Costs</b>
<b>Regulatory Funding</b>			
Administration and Enforcement Grant	0		
Other Regulatory Funding, if applicable	0		
Subtotal (Regulatory Funding)	0	0	
Small Operator Assistance Program Grant Funding	0	0	
Abandoned Mine Land Reclamation Funding	2,847,000	2,847,000	100
Watershed Cooperative Agreement Program	0	0	
<b>TOTAL</b>	<b>2,847,000</b>		

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



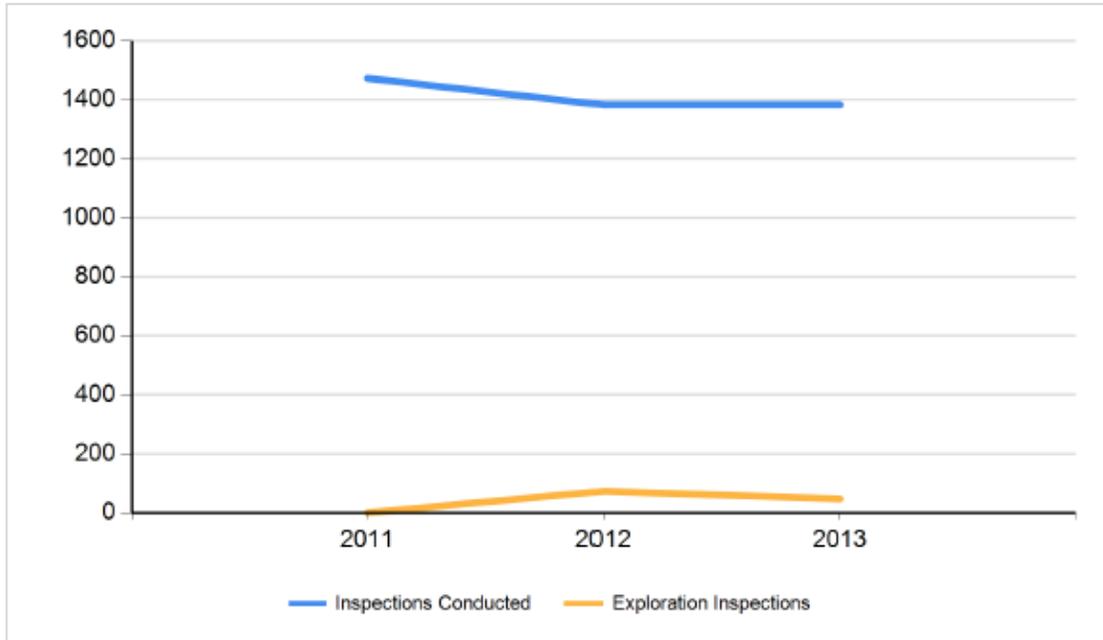
**TABLE 9A**

FUNDS GRANTED TO STATE OR TRIBE BY OSM				
Year	Regulatory Program	SOAP	AML Program	Total
2011	0	0	4,600,437	4,600,437
2012	0	0	3,395,925	3,395,925
2013	0	0	2,847,000	2,847,000

TABLE 10

STATE INSPECTION ACTIVITY INSPECTABLE UNITS FOR WHICH STATE MET REQUIRED INSPECTION FREQUENCY ON AN INSPECTABLE UNIT-BY-INSPECTABLE UNIT BASIS <sup>1</sup>												
Inspectable Units (IUs)	Total number of inspectable units <sup>2</sup>	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
<b>COAL MINES AND FACILITIES</b>												
Active	83	332	664	327	735	83	100	83	100	83	83	100
Inactive	35	140	0	130	30	35	100	35	100	35	35	100
Abandoned	163	163	0	134	27	163	100	163	100	163	163	100
<b>TOTALS <sup>3</sup></b>	<b>281</b>	<b>635</b>	<b>664</b>	<b>591</b>	<b>792</b>	<b>281</b>	<b>100</b>	<b>281</b>	<b>100</b>	<b>281</b>	<b>281</b>	<b>100</b>
<b>Coal Exploration Activities <sup>4</sup></b>		<b>Complete Inspections</b>						<b>Partial Inspections</b>				
Exploration sites with permits		0						0				
Exploration sites with notices		34						13				
<sup>1</sup> Calculated on a site-specific basis. <sup>2</sup> Total number includes both permanent program permits and initial program sites. <sup>3</sup> 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 <sup>4</sup> 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. <sup>5</sup> NA - Not Available												

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



**TABLE 10A**

STATE OR TRIBAL INSPECTION ACTIVITY		
Year	Inspections Conducted	Exploration Inspections
2011	1473	0
2012	1383	73
2013	1383	47

TABLE 10

STATE INSPECTION ACTIVITY INSPECTABLE UNITS FOR WHICH STATE MET REQUIRED INSPECTION FREQUENCY ON AN INSPECTABLE UNIT-BY-INSPECTABLE UNIT BASIS <sup>1</sup>												
Inspectable Units (IUs)	Total number of inspectable units <sup>2</sup>	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
<b>COAL MINES AND FACILITIES</b>												
Active	0	0	0	0	0	0	0	0	0	0	0	0
Inactive	0	0	0	0	0	0	0	0	0	0	0	0
Abandoned	6	6	0	6	1	6	100	6	100	6	6	100
<b>TOTALS <sup>3</sup></b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>6</b>	<b>1</b>	<b>6</b>	<b>100</b>	<b>6</b>	<b>100</b>	<b>6</b>	<b>6</b>	<b>100</b>
<b>Coal Exploration Activities <sup>4</sup></b>		<b>Complete Inspections</b>					<b>Partial Inspections</b>					
Exploration sites with permits		0					0					
Exploration sites with notices		0					0					

<sup>1</sup> Calculated on a site-specific basis.

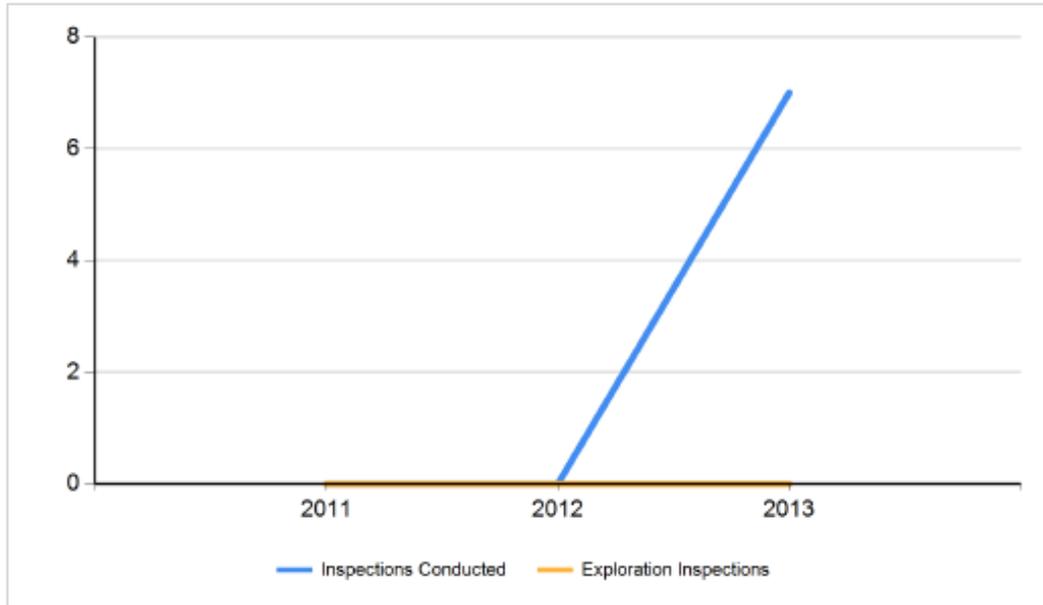
<sup>2</sup> Total number includes both permanent program permits and initial program sites.

<sup>3</sup> 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

<sup>4</sup> 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.

<sup>5</sup> NA - Not Available

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



**TABLE 10A**

STATE OR TRIBAL INSPECTION ACTIVITY		
Year	Inspection: Conducted	Exploration Inspections
2011	0	0
2012	0	0
2013	7	0

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	Number of Actions <sup>1</sup>	Number of Violations <sup>1</sup>
Notice of Violation	74	103
Failure-to-Abate Cessation Order	8	10
Imminent Harm Cessation Order	1	1

<sup>1</sup> Does not include actions and violations that were vacated.

CHART 11A HISTORICAL TRENDS  
STATE OR TRIBAL ENFORCEMENT ACTIVITY

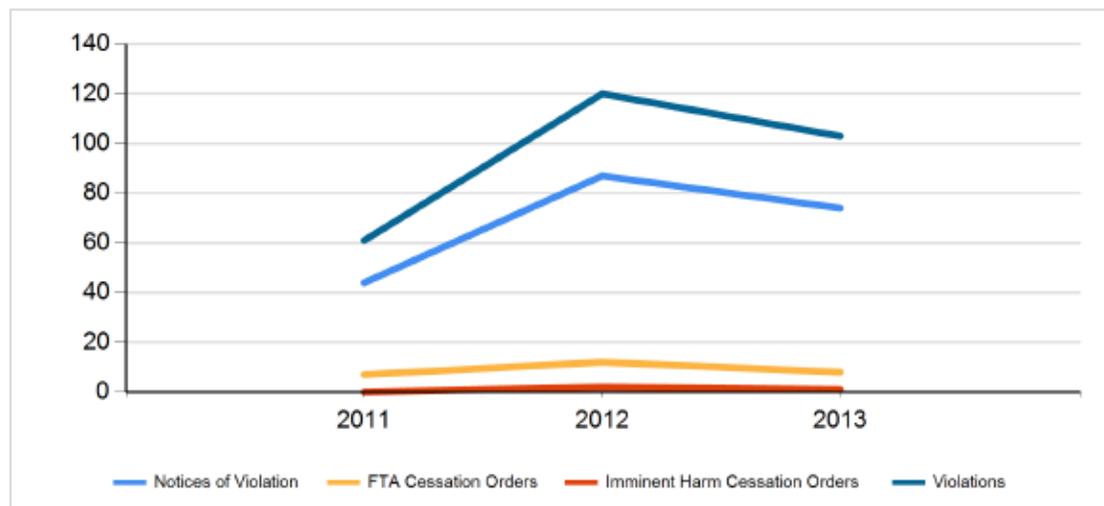


TABLE 11A

STATE OR TRIBAL ENFORCEMENT ACTIVITY				
Year	Notices of Violation	Violations	FTA Cessation Orders	Imminent Harm Cessation Orders
2011	44	61	7	0
2012	87	120	12	2
2013	74	103	8	1

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	Number of Actions <sup>1</sup>	Number of Violations <sup>1</sup>
Notice of Violation	0	0
Failure-to-Abate Cessation Order	0	0
Imminent Harm Cessation Order	0	0

<sup>1</sup> Does not include actions and violations that were vacated.

CHART 11A HISTORICAL TRENDS  
STATE OR TRIBAL ENFORCEMENT ACTIVITY

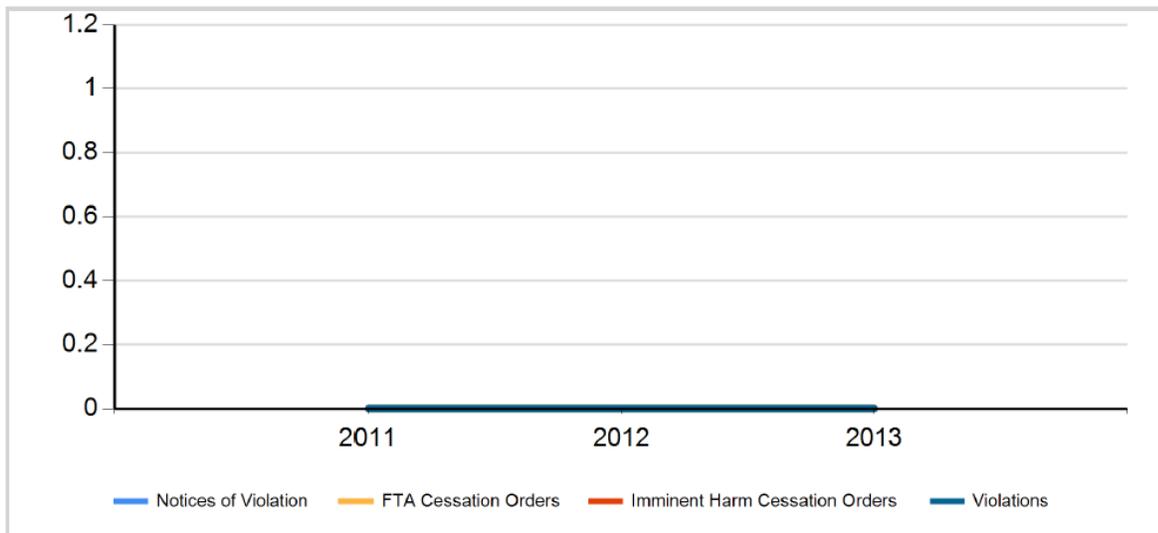


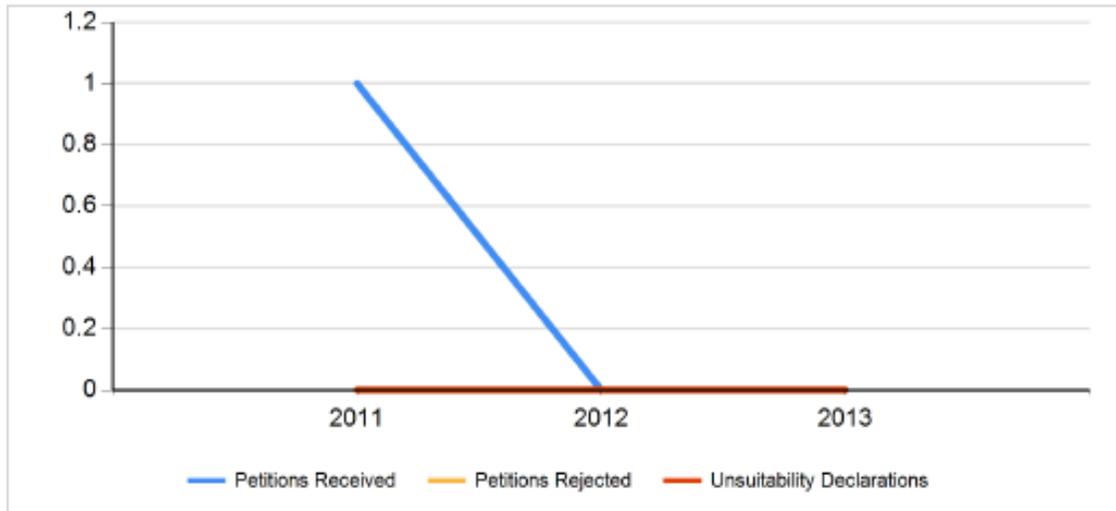
TABLE 11A

STATE OR TRIBAL ENFORCEMENT ACTIVITY				
Year	Notices of Violation	Violations	FTA Cessation Orders	Imminent Harm Cessation Orders
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

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

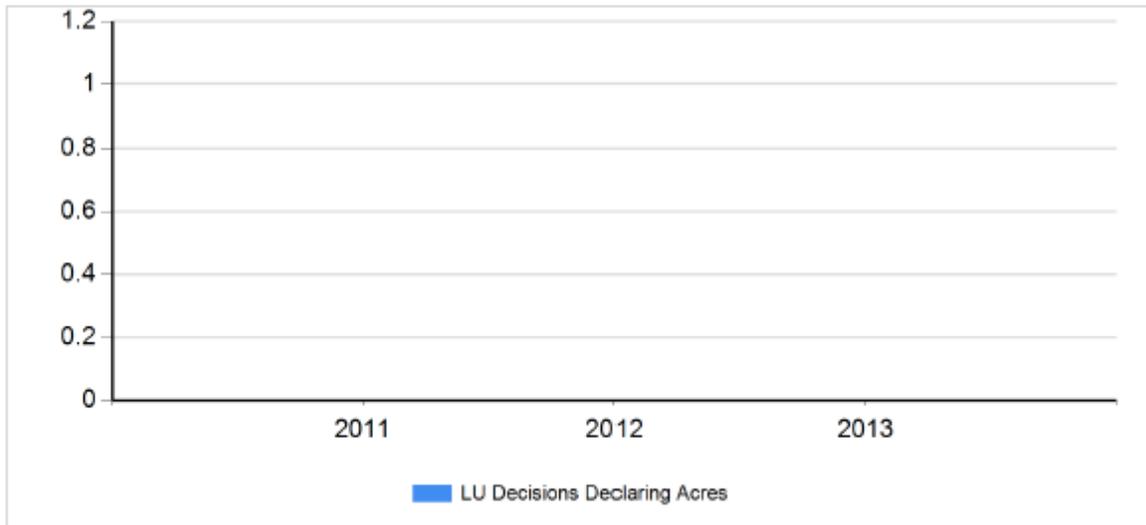
**CHART 12A HISTORICAL TRENDS  
 LANDS UNSUITABLE ACTIVITY**



**TABLE 12A**

<b>LANDS UNSUITABLE ACTIVITY</b>			
<b>Year</b>	<b>Petitions Received</b>	<b>Petitions Rejected</b>	<b>Unsuitability Declarations</b>
2011	1	0	0
2012	0	0	0
2013	0	0	0

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



**TABLE 12B**

<b>ACRES DECLARED UNSUITABLE</b>	
<b>Year</b>	<b>Acres Declared Unsuitable</b>
2011	0.0
2012	0.0
2013	0.0

**Knoxville Field Office  
Annual Evaluation Report  
Fiscal Year 2013**

**APPENDIX 2**

**Summary of Core Data to Characterize the AML Program**

The following tables present summary data pertinent to mining operations and regulatory activities under the Tennessee regulatory program. Unless otherwise specified, the reporting period for the data contained in the tables is the Fiscal Year. Other data and information used by OSMRE in its evaluation of Tennessee's performance is available for review in the evaluation file maintained by KFO.

Because of the enormous variations from state to state and tribe to tribe in the number, size, and type of coal mining operations and the differences between state and tribal programs, the summary data should not be used to compare one state or tribe to another.

List of Tables

Table 1	Tennessee Status of AML Inventory
Table 2	Tennessee Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining
Table 3	Tennessee Accomplishments in Eliminating Environmental Problems Related to Past Mining
Table 4	Tennessee Accomplishments in Public Well-Being Enhancement
Table 5	Tennessee Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining
Table 6	Tennessee Reclamation Projects
Table 7	Tennessee AML Program Grant Awards and Staffing

**Table 1 – (State/Tribe) Status of AML Inventory**  
 (All Priority 1, 2, and 3 Hazards as of September 30, 2013)

	High Priority		Elevated Priority 3	Stand Alone Priority 3 (not adjacent or in conjunction w/ P1&P3)	Total
	Priority 1	Priority 2			
<b>UNFUNDED</b>					
<b>GPR Acres</b>	2.10	702.3	23.30	8,194.24	8,921.94
<b>Dollars</b>	550,000.00	9,018,430.00	109,100.00	27,206,255.00	36,883,785.00
<b>FUNDED</b>					
<b>GPR Acres</b>	1.00	203.56	127.80	41.80	374.16
<b>Dollars</b>	33,000.00	1,246,450.00	737,600.00	132,750.00	2,149,800
<b>COMPLETED</b>					
<b>GPR Acres</b>	262.03	2,648.00	197.67	1,493.17	4,600.87
<b>Dollars</b>	4,168,176.00	16,703,949.70	1,002,768.00	8,038,905.00	29,913,798.70

**Table 2 – (State/Tribe)**  
**Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining**  
**Priority 1 and 2 Hazards**  
(As of September 30, 2013)

	Clogged Stream Lands (Acres)	Clogged Streams (Miles)	Dangerous Highwalls (Feet)	Dangerous Impoundments (Count)	Dangerous Piles & Embankments (Acres)	Dangerous Slides (Acres)	Hazardous Equip & Facilities (Count)	Hazardous Water Bodies (Count)	Industrial/Residential Waste (Acres)	Polluted Water: Agricultural & Industrial (Count)	Polluted Water: Human Consumption (Count)	Portals (Count)	Subsidence (Acres)	Surface Burning (Acres)	Vertical Openings (Count)	Total
<b>UNRECLAIMED/REMAINING HAZARDS (Unfunded)</b>																
Units	0.00	7.00	8,976.00	1.00	83.50	72.00	30.00	22.00	3.00	9.00	37.00	322.00	0.00	1.00	12.00	9,575.50
GPRAs	0.00	35.00	128.23	5.00	83.50	72.00	3.00	110.00	3.00	45.00	185.00	32.20	0.00	1.00	1.20	704.13
Costs	0.00	370,000.00	924,750.00	1,000.00	810,000.00	3,450,000.00	529,000.00	804,000.00	15,000.00	585,000.00	784,000.00	934,680.00	0.00	300,000.00	61,000.00	9,568,430.00
<b>ANNUAL RECLAMATION - FY 2013 only (Completed)</b>																
Units	0.00	0.00	1,916.00	0.00	0.00	2.90	0.00	1.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	1,939.90
GPRAs	0.00	0.00	27.40	0.00	0.00	2.90	0.00	5.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	135.30
Costs	0.00	0.00	120,000.00	0.00	0.00	191,997.30	0.00	52,208.00	0.00	0.00	418,828.20	0.00	0.00	0.00	0.00	783,033.50
<b>HISTORIC RECLAMATION FY 1978-2013</b>																
Units	147.00	1.80	68,877.90	3.00	532.60	48.10	31.00	92.00	17.00	7.00	112.00	192.00	6.00	27.50	11.00	70,105.90
GPRAs	147.00	66.50	983.93	15.00	532.60	48.10	3.10	448.00	17.00	35.00	560.00	19.20	6.00	27.50	1.10	2,910.03
Costs	91,214.00	404,082.00	4,915,516.00	48,000.00	3,838,039.00	1,649,386.00	318,767.00	3,081,361.70	161,972.00	783,347.00	3,194,362.00	606,479.00	120,783.00	1,507,095.00	151,722.00	20,872,125.70

**Table 3 – (State/Tribe)**  
**Accomplishments in Eliminating Environmental Problems Related to Past Mining**  
**Priority 3 and SMCRA section 403(b) Hazards**  
(As of September 30, 2013)

	Bench (Acres)	Equipment Facility (Count)	Gobs (Acres)	Haul Road (Acres)	High Wall (Feet)	Industrial/Residential Waste (Acres)	Mine Opening (Count)	Other ()	Pits (Acres)	Slump (Acres)	Slurry (Acres)	Spoil Area (Acres)	Water Problems (Gallons)	Total
<b>UNRECLAIMED/REMAINING HAZARDS (Unfunded)</b>														
Units	1,839.00	20.00	118.50	461.00	16,816.00	2.00	43.00	6.00	1,165.50	0.00	1.00	4,379.50	1,739.00	26,590.50
GPRA	1,839.00	2.00	118.00	461.00	240.24	2.00	4.30	0.00	1,165.50	0.00	1.00	4,379.50	5.00	8,217.54
Costs	4,411,719.00	158,500.00	344,603.00	749,057.00	2,428,000.00	5,000.00	124,001.00	73,501.00	4,983,353.00	0.00	1,500.00	12,311,256.00	1,724,865.00	27,315,355.00
<b>ANNUAL RECLAMATION - FY2013 only (Completed)</b>														
Units					3,715.00				11.50			8.20		3,734.70
GPRA					53.10				11.50			8.20		72.80
Costs					100,000.00				65,120.00			103,552.00		268,672.00
<b>HISTORICAL RECLAMATION - FY1978-2013 (Completed)</b>														
Units	76.00	15.00	68.50	8.00	23,188.20	4.20	3.00	1.00	166.50	4.00	0.00	1,030.20	361.00	24,925.60
GPRA	76.00	1.50	69.00	8.00	331.24	4.20	0.30	0.00	165.70	4.00	0.00	1,029.90	1.00	1,690.84
Costs	359,275.00	56,055.00	471,931.00	48,403.00	959,003.00	4,795.00	9,500.00	48,025.00	1,103,317.00	136,870.00	0.00	5,436,482.00	408,017.00	9,041,673.00

**Table 4 – (State/Tribe) Public Well-Being Enhancement**  
 (All Priority 1, 2, 3 AML projects completed during FY 2013)

PAD Number	Problem Type(s) Reclaimed	Project Name	Cost	GPRA Acres	Number of People with Reduced Exposure Potential
TN000256	SA	Crab Mountain Landslide	\$103,552.00	8.2	64
TN000256	DS	Crab Mountain Landslide	\$144,608.00	1.5	64
TN000234	DS	Grave Hill Landslide	\$47,398.30	1.4	80
TN000193	H	Roseanne Ellis	\$100,000.00	53.1	104
TN000193	DH	Roseanne Ellis	\$120,000.00	27.4	104
TN000193	HWB	Roseanne Ellis	\$52,208.00	5	104
TN000193	PI	Roseanne Ellis	\$65,120.00	11.5	104
TN000166	PWHC	Stinking Creek Waterline Phase 2	\$418,828.20	100	82

**Table 5 – (State/Tribe) – Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining**  
 (AML projects completed during FY 2013)

PAD Number	Project Name	SMCRA Program Funding Source	Total SMCRA Funding	Alternate Non-SMCRA Funding Source	Alternate Non-SMCRA Funding Source
TN000166	Stinking Creek Waterline Phase 2	SGA	\$418,828.20	Program	\$0.00
TN000193	Roseanne Ellis	SGA	\$100,000.00	Program	\$0.00
TN000193	Roseanne Ellis	SGA	\$120,000.00	Program	\$0.00
TN000193	Roseanne Ellis	SGA	\$52,208.00	Program	\$0.00
TN000193	Roseanne Ellis	SGA	\$65,120.00	Program	\$0.00
TN000234	Grave Hill Landslide	SGA	\$47,398.30	Program	\$0.00
TN000256	Crab Mountain Landslide	SGA	\$103,552.00	Program	\$0.00
TN000256	Crab Mountain Landslide	SGA	\$144,608.00	Program	\$0.00

**Table 6 – (State/Tribe) – Reclamation Projects Started and/or Completed**  
(During FY 2013)

Project Type	Projects Started	Projects Completed
State/Tribe (FY 2013)	6	4
Federal (FY 2013)	0	0
Total (FY 2013)	6	4

**Table 7 – (State/Tribe) – AML Program Grant Awards and Staffing**  
(During FY 2013)

AML Program Costs	
Administration	\$27,825.00
Construction	\$1,276,272.00
Water Supply Construction	\$1,020,000.00
AMD Set-Aside	\$522,903.00
Other(s)	\$0.00
<b>Total AML Funding</b>	<b>\$2,847,000.00</b>
<b>AML Program Staffing (full-time equivalents on September 30, 2013)</b>	<b>3</b>