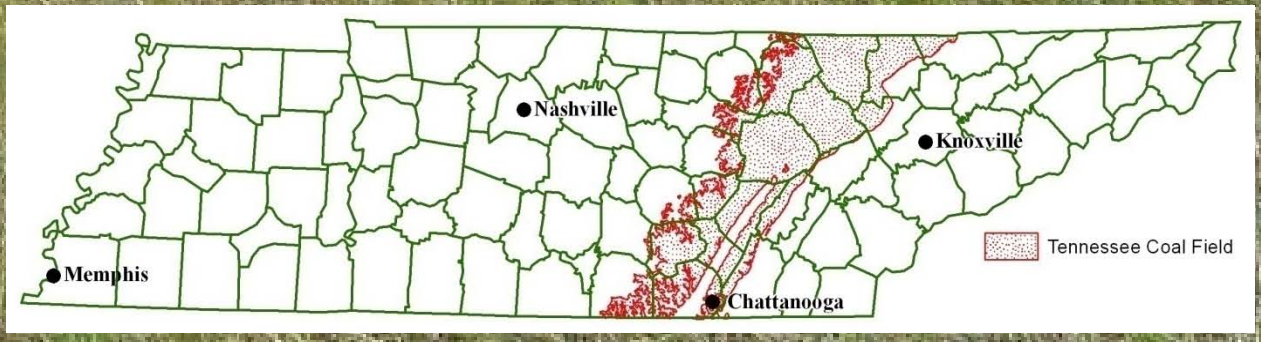
Knoxville Field Office

Inspection

Technical

Earl Bandy, Field Office Director



Fiscal Year 2011

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report

for the

Regulatory and AML Programs

Administered by the Knoxville Field Office

of

TENNESSEE and GEORGIA

Fiscal Year 2011
October 1, 2010 to September 30, 2011

TABLE OF CONTENTS

APPENDICES:

EXECUTIVE SUMMARY

Tennessee Federal Program

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) provides authority for OSM to implement a Federal Regulatory program in the states without approved regulatory programs. In Tennessee, OSM implemented the Federal regulatory program in October 1984 when the state repealed its surface mining law. OSM 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. The 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.

Accomplishments

The following listed items highlight KFO's major accomplishments during FY 2011:

- Trust Funds - KFO conducted the annual reviews of the three existing trust funds. Additionally, the fourth treatment trust fund was executed with Lexington Coal Company (LCC) for the Pine Ridge site. A total of $4,095,449 was invested to provide long term treatment of pollutional discharges emanating from LCC's Pine Ridge Permit in Sequatchie County Tennessee. Additional sites will be evaluated in FY 2012 due to existing post-mining water quality concerns.

- Inspections - KFO successfully conducted the required number of inspections at all active and inactive surface coal mining and reclamation operations in Tennessee. Additionally, eight complete inspections at three bond forfeited sites were conducted. Reclamation efforts at these sites were completed during FY 2011 by utilizing forfeited bond funds.

- Offset Initiative - The Civil Penalty offset of Unobligated Forfeited bonds was completed and over $150,000 in funds transferred to the civil penalty account. These funds can now be used to supplement reclamation on other sites which require additional funding.

- Off-site Impacts - KFO continued a study of off-site impacts in Tennessee to incorporate FY 2011 data. This study evaluates off-site impacts over a six year period, where a total of one hundred twelve off-site impacts to people, land, water and structures were identified. The study reveals the vast majority of impacts during this period occurred to water, followed in order by land, people and structures.

- Lands Unsuitable for Mining Petition - On October 1, 2010, the State of Tennessee submitted a Lands Unsuitable for Mining (LUM) petition for the North Cumberland Wildlife Management Area and Emory River Tracts Conservation Easement. The petition requests that OSM 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". OSM determined in November 2010 that the State of Tennessee's petition is complete. KFO is preparing an Environmental Impact Statement regarding the petition and will hold public hearings in the spring of 2012.

- Reforestation - During 2011, a total of 412,300 trees were planted on reclaimed mine sites in Tennessee and 386,600 of those trees were planted on sites prepared using the Forestry Reclamation Approach (FRA). As a result, ninety-four percent of trees planted on reclaimed mines in Tennessee in 2011 were on sites prepared using the FRA. Some of this success is due to KFO's role in developing a new FRA Workshop through the OSM National Technology Training Program. This workshop is used to educate the mining industry, regulatory authorities, and citizen groups about the FRA technology. Additionally, KFO and University of Tennessee (UT) Department of Forestry planned and hosted the 2011 Appalachian Regional Reforestation Conference in Knoxville Tennessee. The Conference theme was Restoring Forest Ecosystem Services using the Forestry Reclamation Approach and featured a full day of scientific and technical presentations considering entire ecosystems as a part of the FRA: soils, plant, animal and microbial communities.

- Interagency Coordination – KFO, in collaboration with the Tennessee Department of Environment and Conservation (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 (EPA) established a Local Interagency Working Agreement (LIWA). The goal of the agreement is 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 (CWA), the SMCRA and the ESA (Endangered Species Act). The group established standard operating procedures (SOP) to guide the industry through a seven step interagency permitting process starting with the Clean Water Act permits and ending with the issuance or denial of a SMCRA permit.

- Performance Improvement Team – The KFO Performance Improvement Team (PIT Crew) met to assign teams to all active coal producing permits and selected non-coal producing permits that are now in various stages of mining/reclamation and have had a history of problems. Staff members from both the Inspection and Technical Groups work together in resolving any problems that may be identified in the field.

- Youth Initiative - KFO employed seven interns during FY 2011. These interns worked in areas of inspection, engineering, geology, GIS, hydrology and administration. Two interns served under the AmeriCorps program that places youth in positions designed to offer mentoring, experience, and the opportunity to work side by side with experts in the field.

National Measurements

- Coal Production - Tennessee currently ranks twenty fourth in production of coal among the twenty-six coal-producing states. Over the past ten year period coal production has declined from 3.3 million tons in calendar year 2001 to 1.8 million tons in calendar year 2010 (the last year data was available). This is an overall decrease of forty-five percent. There has been a corresponding decrease in active coal producing permits from twenty-five (eleven underground and fourteen surface mines) in FY 2010, to fifteen active coal producing permits (five underground and ten surface mines) in FY 2011. There has been no active coal production in the state of Georgia for several years.

- Inspections - KFO inspectors conducted 1,473 inspections at two hundred ninety permits in Tennessee. KFO analyzed off-site impact data from the violations resulting from these inspections. KFO field inspectors issued seventy violations that resulted in twenty six measurable off-site impacts at sixteen permits. Ninety five percent of minesites inspected by KFO were free of off-site impacts compared to ninety four percent in FY 2010.

- Bond Releases - KFO granted bond releases on seven hundred eighty nine acres for Phase I reclamation, two hundred eight acres for Phase II reclamation, and one hundred sixty two acres for Phase III reclamation.

Customer Service / Stakeholder Outreach

In recent years KFO has experienced a steady decrease in the number of citizen's complaints received. In FY 2006, seventeen complaints were received. During FY 2011 KFO only received seven citizen's complaints or an overall decrease of fifty nine percent from FY 2006. All of the complaints received during FY 2011 were investigated and responses were provided to the complaining parties within ten days of concluding the investigations.

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

- Just as with participation of the public 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 eleven different State or Federal agencies that receive notification of proposed permitting actions.

- 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 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 Abandoned Mine Land (AML) Emergency program was transferred to Tennessee on October 1, 2010, as proposed in the FY 2011 Presidential budget. Tennessee agrees to implement the program in accordance with the provisions of the Federal Assistance Manual (FAM). Tennessee had no emergency projects during FY 2011.

- During FY 2011, OSM completed one waterline extension project and one stream restoration project for a total of one hundred ninety five acres. Prior to construction, the water in the waterline project area exceeded secondary drinking standards in iron and manganese. As a result, 64 people received potable water and are no longer at risk for potential safety risks from abandoned mine lands. The stream restoration project resulted in the restoration of 650

feet of stream as well as the elimination of dangerous highwalls and acidic water filled pits. One hundred fifty trees were planted using the Forestry Reclamation approach and 1,321 people are no longer exposed to potential safety risks from abandoned mine lands.

- OSM issued authorizations to proceed on three projects during the evaluation year. These projects will provide reclamation on three hundred fifty four acres and include stabilizing a landslide below a city water tank, extension of a county waterline, and the reclamation of two abandoned surface mines. These projects have a total estimated cost of $1,325,000.

Outstanding Issues

- In 2011, five fish species were listed as endangered in the Federal Register (August 9, 2011). Of the five species listed, only the laurel dace (*Chrosomus saylori*) and the Cumberland darter (*Etheostoma susanae*), may impact surface mining permits in Tennessee.

Technical Assistance and Grants

- The KFO Geographical Information System provided valuable assistance to the professional staff by acquiring and processing essential digital data and creating data bases for analysis of the Lands Unsuitable for Mining Petition analysis.

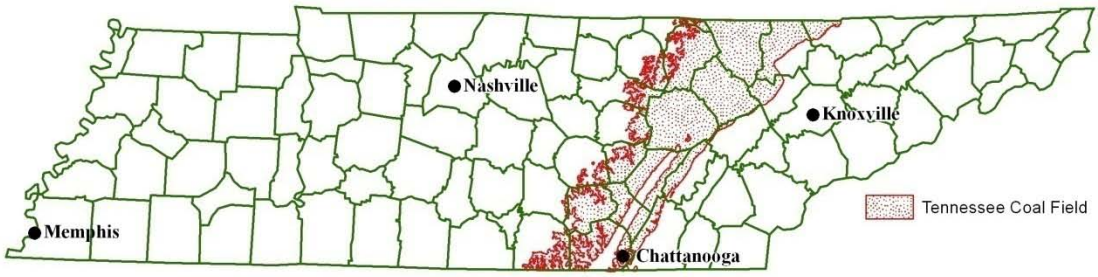
- KFO continues to have a number of its employees, primarily the Technical Group staff, serving on various projects, teams, and assignments that are of common interest to the Appalachian Region and to all of OSM. Several of these technical assistance activities are cooperative efforts with the Program Support Division within Appalachian Region. During FY 2011, the Technical Group spent approximately 93 percent of their time on Federal program activities and seven percent on technical assistance activities.

I. INTRODUCTION

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards specified by SMCRA. The Act provides authority for OSM to implement a Federal regulatory program in the States without approved regulatory programs. In Tennessee, OSM implemented the Federal regulatory program in October 1984 when the State repealed its surface mining law. OSM 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, 2010, to September 30, 2011. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Knoxville, Tennessee OSM Office. You can also view this report on the OSM website at http://www.osmre.gov/Reports/EvalInfo/2011/2011.shtm

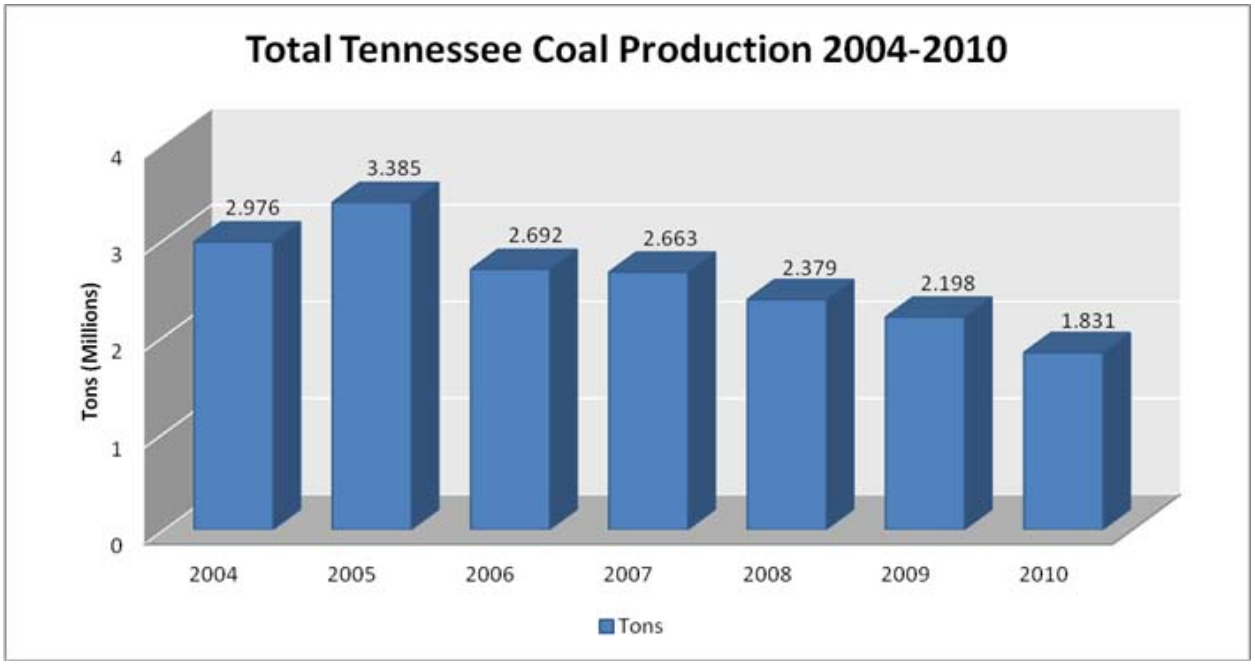
II. OVERVIEW OF THE TENNESSEE COAL MINING INDUSTRY

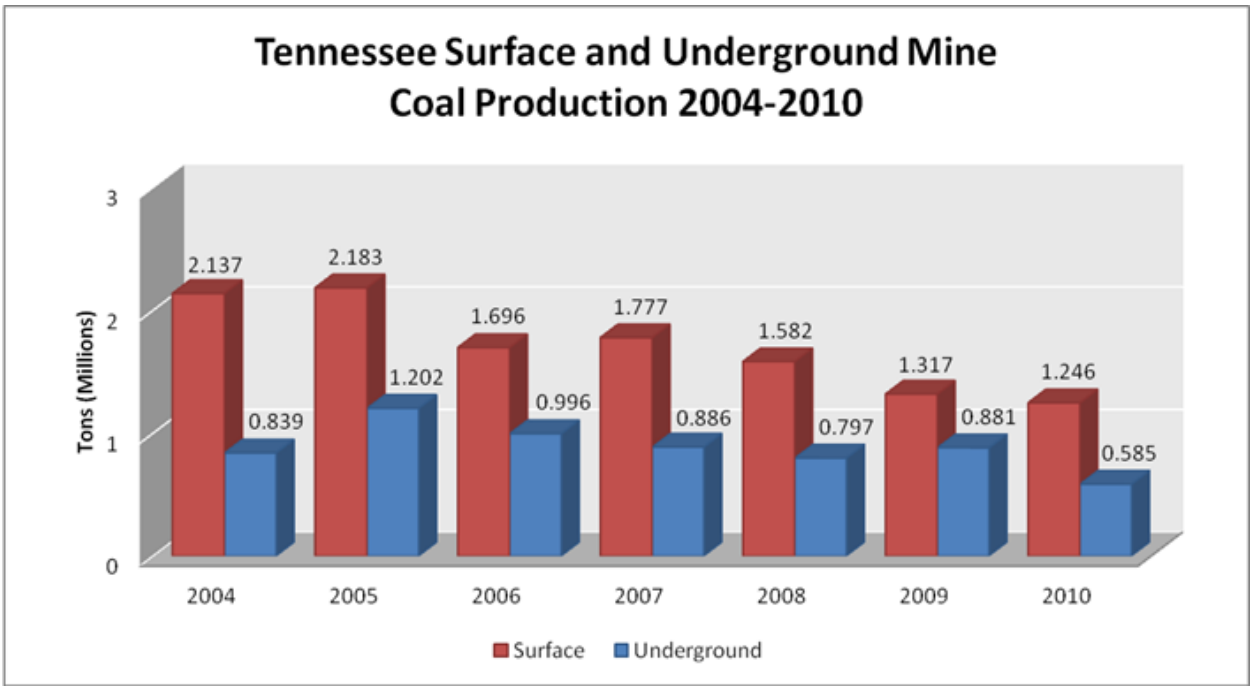
Tennessee's coal resources are in twenty two counties located in the Appalachian Region of the Eastern United States extending from the Kentucky border to the Alabama border in the east central portion of Tennessee. Mining in the northern counties is primarily in the steep slope areas of the Cumberland 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.



Tennessee's recoverable coal reserves of .5 billion short tons exist in bituminous coal beds from less than twenty eight inches to forty two inches in thickness at depths of up to 1,000 feet. Tennessee coal is used primarily for the generation of electric power.

Tennessee ranked twenty fourth in production of coal among the twenty fix coal-producing states in FY 2010. Coal production declined from a high of 11,260,000 tons in 1972 to 1.8 million tons reported during calendar year 2010. Currently, there are a total of fifteen active coal-producing mines that have permitted 6,777 acres. Underground mines have permitted two hundred thirteen acres, excluding shadow areas, (shadow area is the footprint of the underground disturbance transposed to the surface area above) at five active mines, and surface operations have permitted 6,564 acres at ten active mines as of September 30, 2011.





Currently, there are six abandoned surface mine sites located in Dade and Walker Counties of Northern Georgia which total one hundred forty one disturbed acres. 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 program files. Managers and staff have open-door policies for any segment of the public to discuss issues that may arise.

  During the permitting process, the 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, the 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 2011, KFO met with individual citizens or representatives

of environmental groups on at least four 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 2011, public conferences and associated input were requested on one new permit and three renewal applications that were processed by KFO. A total of three public conferences were conducted in FY 2011. The public conference request on the new permit application is anticipated to occur during the 2012 fiscal year timeframes. No requests for informal review of KFO action or inaction were received.

- **Agency Participation in the Regulatory Process**

Just as with participation of the public 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 eleven 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 twenty historical coal producing counties in Tennessee. Each of these county-specific lists generally include from eight to ten 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 and National Park Service (NPS) to discuss issues related to coal mining in Tennessee. In FY 2011, at least fourteen interagency meetings occurred in response to individual proposed permitting actions or concerns, issues, and clarification of existing policies. The agencies participating in these meetings were TDEC, USFWS, OSM, USACE and EPA. In addition to these inter-agency meetings, numerous phone conversations with other agencies were held that further facilitated their participation in the SMCRA regulatory process.

- **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 LIWA whereby the applicant meets with OSM, USACE, EPA, USFWS, and TDEC while the SMCRA application is being developed for submittal to OSM. 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.

Stakeholder Meetings - In implementing the regulatory program in Tennessee, KFO holds stakeholder meetings to discuss programmatic issues affecting the coal industry in Tennessee. These meetings are designed to solicit input from the industry for consideration by KFO. During 2011, KFO conducted a meeting was a joint meeting with USACE, EPA, USFWS and TDEC to discuss with industry stakeholders both State and SMCRA regulatory requirements related to water quality.

- **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 and procedures such as the development of guidance documents for the protection and enhancement of Federally-listed species such as the Indiana bat and the blackside dace.

During March 2011, KFO conducted three scoping meetings with the public and industry that was a "fact finding forum" where both the public and industry could present their issues of concerns to OSM concerning the LUM.

During April 2011, the OSM Director toured the LUM area and met with State and County officials. The Director traveled to TDEC, Campbell County, Anderson County and Morgan County for these meetings. The Director also met individually with the local citizens groups from SOCM, UMD, and LEAF. The Director continued this open dialog by meeting with local business leaders to discuss the implications of the LUM for the local mining industry.

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

- **Inspection Frequency**

Active Sites

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

During FY 2011 the KFO successfully conducted the required inspection mandate in accordance with 30 CFR 842.11 at all active and inactive surface coal mining and reclamation operations in Tennessee.

Coal Mines	Number of Complete Inspections Required	Number of Complete Inspections Conducted	Number of Partial Inspections Required	Number of Partial Inspections Conducted
Active	366	389	720	916
Inactive	138	138	0	18
Abandoned	162	11	162	1
Total	666	538	882	935

Frequency Calculations	
Number of Permits Requiring Inspections	290
Number of Inspections Conducted	1,473
Number of Permits meeting Frequency	132
Percentage of Permits Meeting Frequency	45%*****
*** All permits not meeting inspection frequency were abandoned minesites**	

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) (the abandoned rule). These sites have had some reclamation, but it is insufficient to satisfy regulatory requirements for complete reclamation. The vast majority of these sites have inspection frequencies of one complete inspection per calendar year. Due to a shortage of field inspectors, the KFO has found it necessary to prioritize its workload to ensure sites with the greatest potential for adverse impacts (active sites) receive adequate inspections. The majority of the abandoned sites have existed greater than twenty years and have healed to a large extent with naturally occurring vegetation and become stabilized. Due to this workload and resulting prioritization, the KFO was unable to inspect the majority of abandoned sites during FY 2011. Eleven complete inspections and one partial inspection were conducted of the one hundred sixty two abandoned sites during FY 2011.

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 rule). The majority of these sites have established inspection frequencies of one complete inspection per calendar year. Most of the bond forfeited sites in Tennessee have had substantial reclamation efforts utilizing forfeited bond funds but several remain on the inspectable units list (IUL) due to deficiencies such as exposed highwalls remnants. In FY 2010 the KFO inspected all permanent program bond forfeited sites and was able to remove thirteen sites from the IUL because these sites were adequately stabilized to meet the intent of SMCRA.

During FY 2011 the KFO conducted a total of eight complete inspections at three bond forfeited sites where reclamation efforts were underway utilizing forfeited bond funds. Reclamation efforts at these sites were completed during FY 2011.

Backfilling Underway

After Reclamation

Phil Mac Enterprises Inc., permit 3108, a twenty seven acre surface mine in Campbell County, was one of three recent bond forfeited sites reclaimed in FY 2011. The above photographs depict during and after reclamation of Phil Mac 3108.

- **Civil Penalty Offset of Unobligated Forfeited Bonds**

During FY 2010, KFO conducted a review of all forfeited bonds with an unobligated balance in the forfeiture account. Contract reclamation had been completed on these sites, and a small balance of unspent funds remained in the account for each site. In order to close the account, the funds had to be dispersed in one of several ways: spend the money by contracting for additional work on the site, return the money to the entity from which it was collected, or use the funds to offset civil penalties owed by the permittee on the particular site.

The sites were inspected and nine were found completely reclaimed without need for further on-site work. These sites had substantial unpaid civil penalties outstanding as the permittees are out of business and without assets.

KFO worked with the Office of the Field Solicitor (OFS), OSM's Division of Financial Management and the Applicant Violator System (AVS) Office to develop a process for offsetting civil penalties with the unspent forfeited funds.

During FY 2011, the Civil Penalty offset of Unobligated Forfeited bonds was completed and the KFO transferred over $150,000 to the civil penalty account. In accordance with 30 USC Section 3176, funds in that account can be used to supplement a shortfall in funds on other sites which require contract reclamation.

Outstanding bond funds were used to offset civil penalties owed by Gem Mining, Inc., permit 2455 (left) and Scarab Energy, permit 2524 (right). Over $150,000.00 was transferred to the OSM civil penalty fund during FY 2011.

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

Background

By letter dated September 30, 2010, the State of Tennessee filed with OSM a petition to designate the ridgelines within the North Cumberland Wildlife Management Area (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 the Tennessee Wildlife Resources Agency (TWRA) and TDEC under OSM'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 affect fragile or historic lands in which such operation could result in sufficient damage to important historic, cultural, scientific and esthetic values and natural systems.

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

Public Outreach

OSM proceeded to process the petition by mailing notices on January 14, 2011, to the petitioners, 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 OSM to prepare a combined Petition Evaluation Document/Environmental Impact Statement (PED/EIS). OSM 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 OSM 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. The final PED/EIS should be decided by late fall of 2012.

Technical Evaluation

The petition area was part of the NCWMA - comprised the Royal Blue, Sundquist, and New River WMAs – and the Emory River Tracts Conservation Easement. The total acreage for the combined NCWMA and the Emory River Tract Easement is approximately 167,075 acres. The petition area include the ridgelines and 600 foot buffer zone (a total of 1200 feet per length of ridgeline) identified by the State is approximately 67,326 acres. The scope of the PED/EIS proposes to evaluate the environmental impacts of each of the alternatives (see Alternatives below) on the existing environment for the entire NCWMA and Emory River Tract boundaries.

OSM contracted for data and services to characterize the existing environmental conditions and uses within the NCWMA and Emory River Tract. To establish the hydrologic regime within the NCWMA and Emory River Tract, OSM purchased equipment, field data collection and analytical services from various vendors. LiDAR (acronym for Light Detection And Ranging) and high resolution photography was also purchased to provide a good terrain and land cover model for the project area. Coal data and information was obtained to assist on the preparation of the coal reserve model for the area. Socioeconomics, recreation, aquatic resources, viewshed modeling, and soundscape studies were also purchased.

Currently, the PED/EIS is being drafted in-house but an outside contractor will be obtained if funds are available. The resources within KFO have been significantly impacted by the need for the LUM PED/EIS process. KFO professionals spending most of their time on the process include: hydrogeologist, civil engineer, terrestrial biologist, aquatic biologist, several GIS specialists, National Environmental Policy Act (NEPA) coordinator, and others as special high intensity tasks warrant. In addition, KFO has sought the assistance from the Appalachian Region and the Mid Continent Regional offices for the assistance of a geologist to do the coal reserve model, and engineers, and hydrologists to provide hydrologic field assistance.

The GIS staff have been significantly involved in the LUM and prepared numerous datasets including but not limited to:

- Land ownership within and adjacent to the NCWMA and Emory River Tracts.
- Revised petition boundaries to objectively identify ridgelines and buffer zones.
- Extent of past surface and underground mining from all sources.
- Identify past logging, mining disturbances, and land uses from aerial photography.
- Establish datasets for coal seam information to provide to geologic modeler.
- Provide necessary data and information to viewshed modeling contractor.
- Establish the trace of the Cumberland Trail State Park.

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 1). 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.

More recently, however, the State has purchased the surface rights and has implemented a multiple use wildlife management area. The primary usage is for hunting and off road vehicle (ORV) but other recreational activities such as hiking, camping, mountain biking, rock climbing, fishing etc. are also permitted.

Figure 1: 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. Examples of the past and recent practices are evident in Figures 2 and 3. Coal operators that mine within the NCWMA have expressed concern that eliminating surface mining would increase unemployment in counties where it is already high and also limit their ability to properly remine and reclaim the past orphan highwalls and benches and restore them to a safer and more useable form for the public to use. They also indicated that water quality is much improved through their mining and reclamation practices.

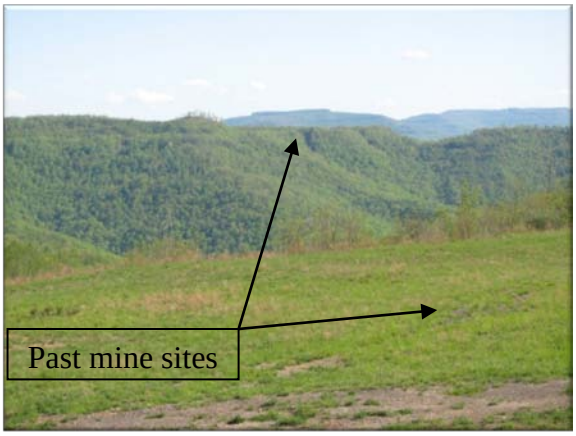


Figure 2: View of previously mined areas in the NCWMA.

Logging activity permitted by agreements as part of the original purchase is also being extensively conducted on the NCWMA. OSM is conducting some 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 NCWMA is set to expire in 2017, at which time, timber management reverts to TWRA.

Figure 3: View of recent logging activities in the NCWMA.

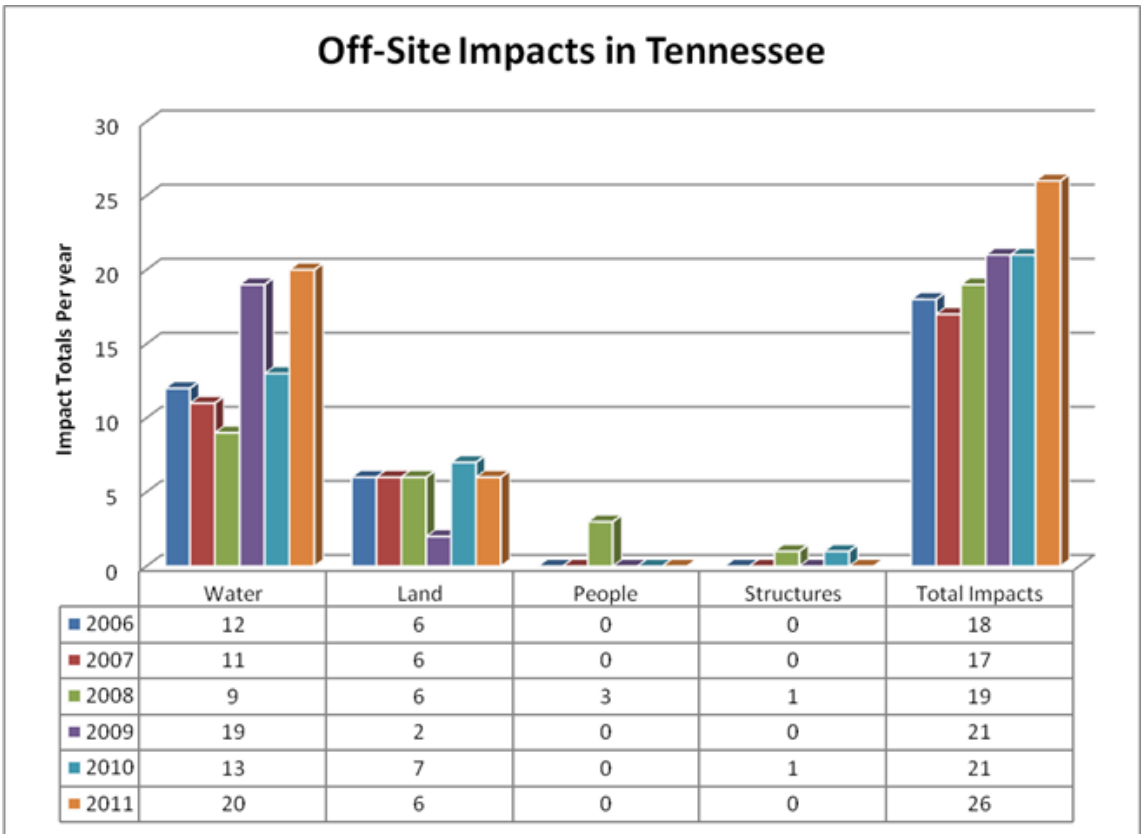
- **Off-site Impact Study**

During FY 2011, the KFO continued a study of off-site impacts in Tennessee. This study (initiated in FY 2009) evaluates off site impacts over a six year period. Off-site impact data is routinely collected and reported in conjunction with enforcement actions issued as a result of SMCRA mandated mine site inspections.

In order to evaluate sufficient off-site impact data to determine trends and causes, data from the past six-year period (FY 2006, 2007, 2008, 2009, 2010 and 2011) were used. KFO enforcement files were reviewed and interviews were conducted with reclamation specialists having historical knowledge of field decisions and circumstances prior to impact occurrence. Differences among minor, moderate and major off-site impacts were not examined since all are counted in reporting the performance measurement regardless of impact severity. In FY 2011, the KFO continued this study by evaluating off-site impact data collected during FY 2011. The FY 2011 data was included and considered in the overall study findings.

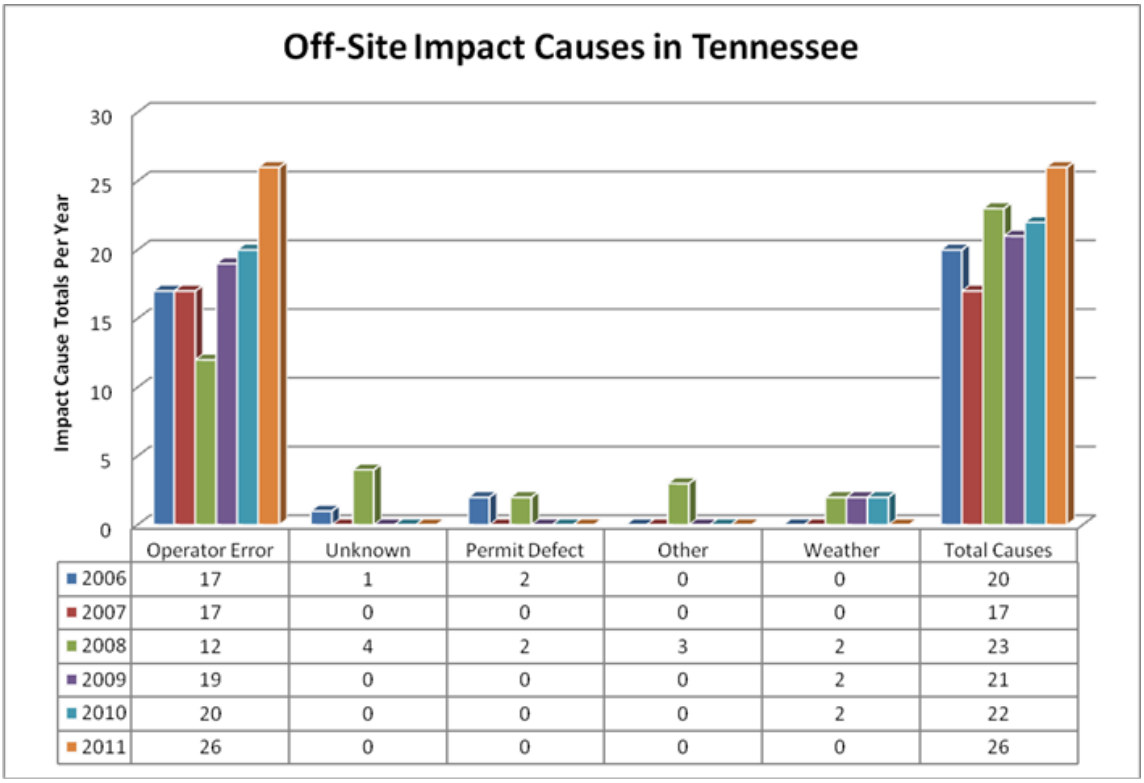
During this six-year period, a total of one hundred twelve off-site impacts to people, land, water and structures were identified. The study revealed the vast majority of impacts during this period occurred to water, followed in order by land, people and structures.

Off-site impacts to water most often occurred due to changes in water chemistry during mining or when sediment laden runoff left sites for short distances. Many of the impacts to land resulted from slides, 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.



	Water	Land	People	Structures	Total Impacts
2006	12	6	0	0	18
2007	11	6	0	0	17
2008	9	6	3	1	19
2009	19	2	0	0	21
2010	13	7	0	1	21
2011	20	6	0	0	26

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



	Operator Error	Unknown	Permit Defect	Other	Weather	Total Causes
2006	17	1	2	0	0	20
2007	17	0	0	0	0	17
2008	12	4	2	3	2	23
2009	19	0	0	0	2	21
2010	20	0	0	0	2	22
2011	26	0	0	0	0	26

In FY 2010 the KFO developed and implemented a plan based on the study findings for further reducing occurrences of off-site impacts in Tennessee. The major steps in the plan were:

1. Meet with KFO field inspectors to discuss uniform methods and consistency in reporting off-site impacts and strategies for helping operators reduce off-site impacts.
2. Meet with KFO technical staff to discuss the observed permit defects that contributed to off-site impacts and consider options to avoid them in the future.
3. Develop an off-site impact study PowerPoint presentation illustrating the study method and findings to be used to inform and educate the coal industry.

During FY 2010, the KFO completed steps 1, 2 and 3 as discussed above. The study findings revealed the majority of off-site impacts resulted at sites where active coal production had occurred. For this reason, KFO scheduled and presented the Power Point presentation to the companies responsible for the majority of Tennessee coal production during FY 2010. Upon review KFO has concluded the data collected during FY 2011 remains consistent with the previous findings, in that the majority of impacts continue to occur to water and land; and, the overwhelming majority of impact causes are attributed to operator error. The study does reveal an increase in total impacts over the six year study period. We believe this is due to increased rainfall over the past two fiscal year period. No further corrective actions are planned at this time but data will continue to be collected and studied for possible improvements in reducing off-site impacts.

- **Acid Mine Drainage Mitigation Projects**

The Federal Program in Tennessee participates as facilitator with local watershed efforts to mitigate the effects of acid mine drainage (AMD) being discharged into watersheds from abandoned coal mines. The field office has six designated watersheds which are North Chickamauga Creek, Bear Creek, Big Laurel Creek, Coal Creek, Thompson/Big Creek and Clear Fork. Due to budget restrictions and higher priority work projects, OSM has reduced the activities with the watershed groups.

During the year, the field office staff performed the following activities in the watersheds:

North Chickamauga Creek - The North Chickamauga Creek Conservancy is the partnership leader in the watershed. The watershed group sponsored an OSM/VISTA (Volunteers in Service to America) person near the end of FY 2010, with the objectives being to continue education of the local public on watershed conditions and issues. She also obtained several grants used for watershed enhancement projects such as stream clean-up events and bank stabilization projects. The KFO participated in water quality monitoring (November 2010 and February 2011) of all acid mine drainage discharges from abandoned surface and underground mines in the watershed.

The Hamilton County Charter High school continued with a limestone dissolution study in the Hogskin Branch tributary of North Chickamauga Creek. The students want to test the rate at which limestone dissolves in low pH discharges from the abandoned mines as the limestone is used to passively treat acid mine drainage from the mines.

Water Quality Test Equipment (pH and flow meter) are demonstrated to the students.
This is a discharge from an underground mine near the North Chickamauga Creek.

Coal Creek - The Coal Creek Watershed Foundation continues to work with the local citizenry to improve the quality of life in the watershed. The KFO staff participated in the Coal Creek Health Day at the Briceville Elementary School. Three staff members assisted the elementary students assess the health of Coal Creek which flows adjacent to the school. Staff from the Tennessee Valley Authority (TVA), the University of Tennessee, Trout Unlimited, and TDEC participated with local volunteers. The students

learned, via annual stream monitoring that as the quality of water in the stream improves, so does the quality of life in the stream.

Aquatic life is netted from the creek and brought to eager elementary school children on the shore.

Several species of fish and other aquatic life are netted from Coal Creek and the children get a close look at the aquatic life in the aquarium.

Clear Fork – The Woodlands Community Land Trust is the partnership leader in the watershed. The Field Office staff provided quarterly water monitoring assistance to TDEC staff and members of the watershed group. The data collected will assist the partnership in the development of a watershed improvement plan.

- **Trust Funds**

  Trust funds or annuities are intended to guarantee treatment of the long-term post-mining 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.

  During FY 2011, OSM conducted the fourth annual review of the Glady Fork long-term treatment trust fund, the first treatment trust fund implemented under the Tennessee Federal Program; the third annual review of the Energy Wash Facility treatment trust fund; and the first for the Big Brush II Treatment Trust. The fourth treatment trust fund agreement to be implemented under the Tennessee Federal program was finalized with Lexington Coal Company (LCC) for the Pine Ridge site. A total of $4,095,449 was invested to provide long term treatment of pollutional discharges emanating from LCC's Pine Ridge permit in Sequatchie County Tennessee. Additional sites are being evaluated in FY 2012 as technical reviews of the water quality conclude at several sites with potential post-mining water quality concerns.

- **Electronic Permitting**

  KFO continues to promote new technology in implementing SMCRA by creating the first federal electronic permitting process. The Electronic Permit Application Control Solution (EPACS) encompasses many of permitting aspects in KFO. During late FY2011, KFO has started a redesign effort of the Field Office Comprehensive Information System (FOCIS). This redesign effort will offer EPACS more internal controls that support the current business practices and technologies.

- **Federal Regulatory GIS Data Involvement**

  On October 1, 2010, the State of Tennessee submitted a Lands Unsuitable for Mining (LUM) petition for the North Cumberland Wildlife Management Area (NCWMA) and Emory River Tracts Conservation Easement. KFO GIS has supported processing and review of the petition by providing critical support in the following areas:

  - acquiring and processing digital data of NCWMA boundaries and petition boundaries
  - acquiring underground mine maps from numerous consultants and other sources for the creation of datasets showing underground mining extents
  - creating reports for management showing permitted coal mining operations within the boundary areas and mineral ownership
  - constructing mailing address databases from tax assessor's property ownership records for use in notifying nearby landowners
  - creating databases of biological surveys
  - acquiring remotely sensed data such as aerial imagery and LiDAR for accurate elevation data

- constructing datasets of mining disturbance, roads and trails and forestry logging areas for land use analysis
- preparing datasets critical to viewshed analysis, soundscape studies; and providing other analytical support to evaluate alternatives.

In addition to work on the LUM, KFO GIS provided technical support in the following ways:

- conducting briefings by OSM personnel with EPA regarding mining impacts on water quality
- providing programmatic coal mining information needs support to KFO management, the inspection group for mine site inspections, and the technical group for mine permit reviews
- pursuing GIS data sharing possibilities between TDEC and OSM
- providing support to TIPS GeoMine project

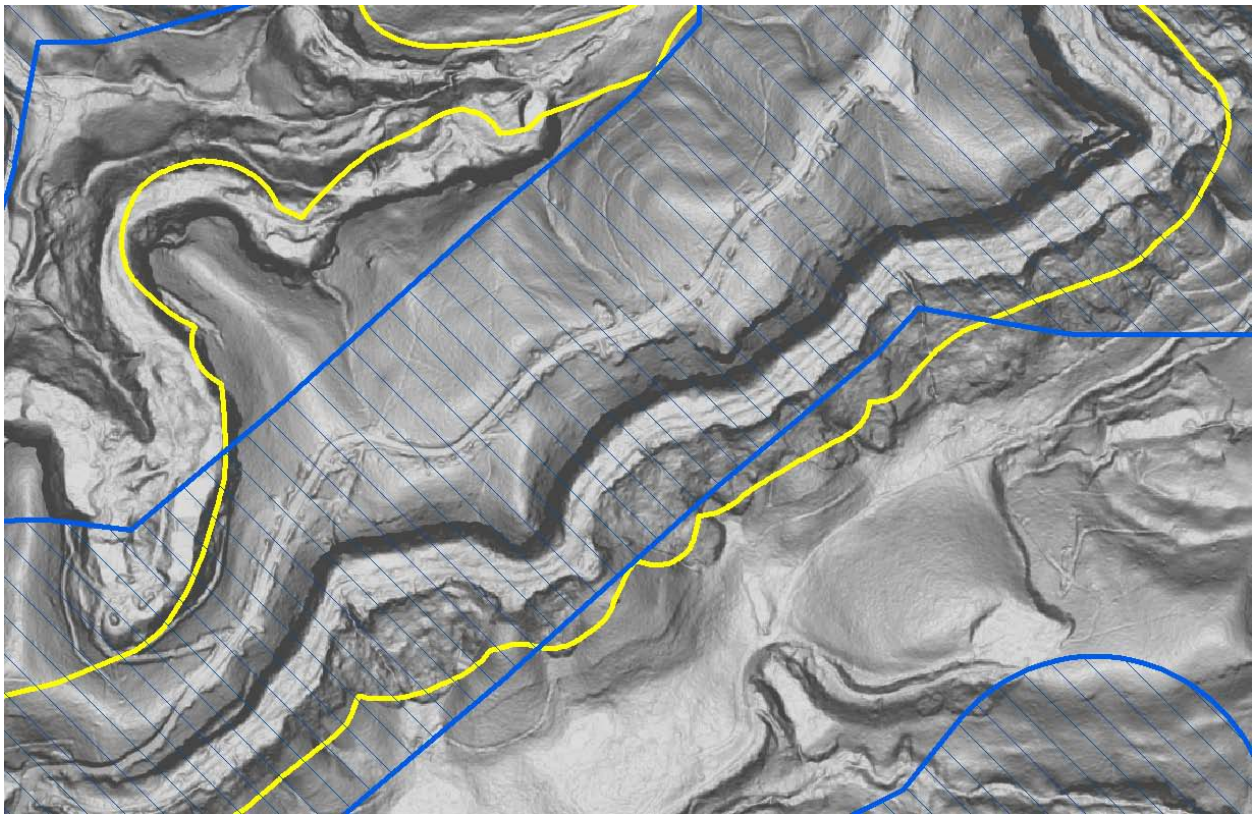


Figure 1. A proposed mine site (in yellow outline) is located within the ridgeline petition boundary (in blue crosshatch) proposed by the State of Tennessee for the North Cumberland Lands Unsuitable for Mining (LUM) petition. Approximately one mile of un-reclaimed highwall, depressions, pit areas, and down slope mine spoil from pre-SMCRA mining are visible along the southeast side of the proposed mine site. Image shown is a high resolution dataset derived from LiDAR remote sensing imagery.

- **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; the Office of Surface Mining, including the Tennessee Federal Program, their partners in 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 2011 a total of 412,300 trees were planted on reclaimed mine sites in Tennessee and 386,600 of those trees were planted on sites prepared using the FRA. As a result, ninety-four percent of trees planted on reclaimed mines in Tennessee in 2011 were on sites prepared using the FRA.

Excellence in Reforestation Award

This year DRC Coal Company permit No. 3215 was the Tennessee State ARRI Excellence in Reforestation Regional Award winner for implementation of the Forestry Reclamation Approach techniques. DRC has worked along with the KFO Inspection Group to implement the FRA permit provisions on this remining permit by salvaging available topsoil and weathered sandstone, and placing these materials on the surface in an uncompacted manner to create an ideal tree growth medium. Tree compatible ground cover has been planted in accordance with the revegetation plan, and the planting of native hardwood trees will begin this coming winter.

DRC Coal- salvaging and replacing topsoil, organic material and weathered sandstone to create a good growth medium for planted native hardwood trees.

Tree compatible ground cover is beginning to emerge, which will provide initial erosion control without excessive competition to the native trees.

Forestry Reclamation Approach Workshop and Outreach

The KFO staff played a major role in developing a new FRA Workshop through the OSM National Technology Training Program. This workshop will be used to educate the mining industry, regulatory authorities, and citizen groups about the FRA technology. The KFO continues to provide outreach to the OSM Mid-Continent Region and recently taught the FRA Workshop in Alabama, which was hosted by the Alabama Surface Mining Commission and the OSM Birmingham Field Office. The workshop was attended by representatives from state and federal regulatory agencies, coal industry, landowners and timber companies and included a four-hour classroom session and field trip to a FRA demonstration area. KFO staff played a major role in working toward this goal by providing technical assistance to the Alabama Surface Mining Commission and Taft Mining Company to design and install FRA demonstration projects on active mine sites. During 2011 KFO staff made presentations about the FRA at the Tennessee Mining Association Conference and the National Association of State Land Reclamation Conference in West Virginia.

Arbor Day 2011

The KFO worked with The Coal Creek Foundation and Kopper Glo Mining Company to plan and sponsor an Arbor Day tree planting event with sixty students and teachers from the Claiborne County Public School System. The students planted native hardwood tree seedlings on an active mine site prepared using the FRA techniques. The students also planted American chestnut seedlings that they grew from seeds planted in their own classroom.

Students and teachers from Claiborne County Schools plant hardwood trees on Arbor Day.

2011 ARRI Conference

The ARRI representatives from the KFO and University of Tennessee (UT) Department of Forestry planned and hosted the 2011 Appalachian Regional Reforestation Conference in Knoxville Tennessee. The Conference theme was Restoring Forest Ecosystem Services using the Forestry Reclamation Approach and featured a full day of scientific and technical presentations considering entire ecosystems as a part of the FRA: soils, plant, animal and microbial communities. The new FRA Workshop was also offered as a concurrent session. A program of talks that focused on new challenges and current research offered something for both new and the veteran ARRI members. All participants were invited to a luncheon including presentation of the ARRI 2010 Excellence in Reforestation Regional Award.

The conference included a field trip to the White Oak Reforestation Project located in Campbell County, Tennessee on a Gatliff Coal Company remining permit. The permit was revised to include Forestry Reclamation Approach provisions in 2002 and reclamation was completed in 2004 making it the oldest FRA demonstration site in Tennessee. Participants observed a full range of reforestation efforts under SMCRA including initial black locust and pine plantings on compacted mine soils, pine plantations, hardwood plantings on compacted mine soils, and hardwood plantings on FRA prepared mine soils.

White Oak Reforestation Project - Trees 3 years old

White Oak Reforestation Project – Trees 6 years old

A second field trip was made to a mine site where research plots of pine species and black locust were planted in 1959 on un-compacted spoil with no planted ground cover. Natural succession has occurred over the years on both planted plots and adjacent unplanted areas. The planted trees have been replaced with volunteer vegetation similar to the nearby native forest. Yellow poplar is dominant in the overstory, red maple, sassafrass and northern red oak in the mid-story, and blueberries, ground pine, Virginia creeper and ferns in the understory. This area supports one of the highest yellow poplar site index values in the southeast.

Richard Evans and Martin Schubert, UT Forestry, discuss reforestation of this 50-year-old mine site using FRA techniques

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

  On December 20, 2010, the KFO OSM, TDEC, USACE, USFWS and EPA (Region 4) 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 CWA, SMCRA, and the ESA. During FY 2011, the LIWA group met seven times to coordinate prospective pre-application(s) activities or perform site walks. The group developed ten SOPs to guide the industry through a seven step interagency permitting process starting with applying for the CWA permits and ending with the issuance or denial of the SMCRA permit.

- **Work Breakdown Structure**

  The Cost Recovery initiative was implemented in 2010. KFO began tracking costs associated with each permit in April 2010. This initiative required adding permit numbers to our Activity Based Cost Structure to capture costs with each permitting action. This new structure allows KFO to track hours and costs during the term of the permit for all programmatic activities, including inspections, associated with each permit.
  To date, KFO has added numerous codes to our Work Breakdown Structure (WBS) system. These codes will help KFO track specific permit numbers and will be instrumental in determining the actual cost associated with each permit.

- **Process Improvement Team (PIT Crew)**

  During FY 2009, the KFO formed a Process Improvement Team (PIT Crew) comprised of staff with diverse experience and responsibilities. The PIT Crew's purpose was to develop an efficient and effective process for KFO Technical and Inspection staff to work together as an assigned team to design and implement a quality permit from initial conception of proposed mining through final bond release. KFO management gave the PIT Crew the task of creating a team concept for streamlining requests for technical assistance, which would improve coordination between work groups, implement and promote a team environment, empower work groups to set priorities without management involvement and identify and resolve issues during the application review and during the early stages of mining. The PIT crew developed a list of seven permits for a test period to track the progress and successes of the concept.

  During FY 2011, the KFO Performance Improvement Team (PIT Crew) met to assign teams to all active coal producing permits and selected non-coal producing permits that are now in various stages of mining/reclamation and have had a history of problems that may necessitate a need for a hydrologist, engineer, or biology-revegetation person from KFO technical staff to assist in resolving any problems that may be identified by the inspector assigned to the permit. Although the PIT crew does not currently meet on a scheduled basis, the crew members remain available to provide support when requested.

- **Endangered Species**

In 2011, KFO continued to require the use the documents Coal Mining in Tennessee, Minimum Guidelines for Development of Protection and Enhancement Plans for the Indiana Bat and the Blackside Dace when preparing mining applications in areas where the USFWS identified historical occurrences of the Indiana bat or the blackside dace. Most permitting activities in 2011 either took place or were proposed to take place in areas where these species had been identified. Their use provides valuable vertebrate, water quality, fish, and macro-invertebrate data for the Tennessee coalfields.

In 2011, two fish species were listed as endangered in the Federal Register (August 9, 2011) that may impact surface mining permits in Tennessee. Species listed were the laurel dace (Chrosomus saylori) and the Cumberland darter (Etheostoma susanae). According to the USFWS, surviving populations of these fishes have limited geographic ranges and small population sizes. Their decline has been linked to physical habitat destruction and modification resulting from a variety of human-induced impacts such as siltation, disturbance of river bank corridors, and changes in channel structure. Sedimentation impacts are believed to be from mining, logging, and agricultural activities.

- **Youth Initiative**

KFO employed seven interns during 2011. These interns worked in areas of inspection, engineering, geology, GIS, hydrology and administration. One intern is a part of the AmeriCorps program that places youth in positions designed to offer mentoring, experience, and the opportunity to work side by side with experts in the field.

The KFO interns resided in the Knoxville area during the summer months. During their internships, the interns were able to experience the culture and diversity of the area, as well as, the vast outdoor opportunities available in the area.

KFO interns Calvin Cassady assists the hydrologists with water sampling in conjunction with the North Cumberland LUM project and Monica Wilson is well sampling for an AML project.

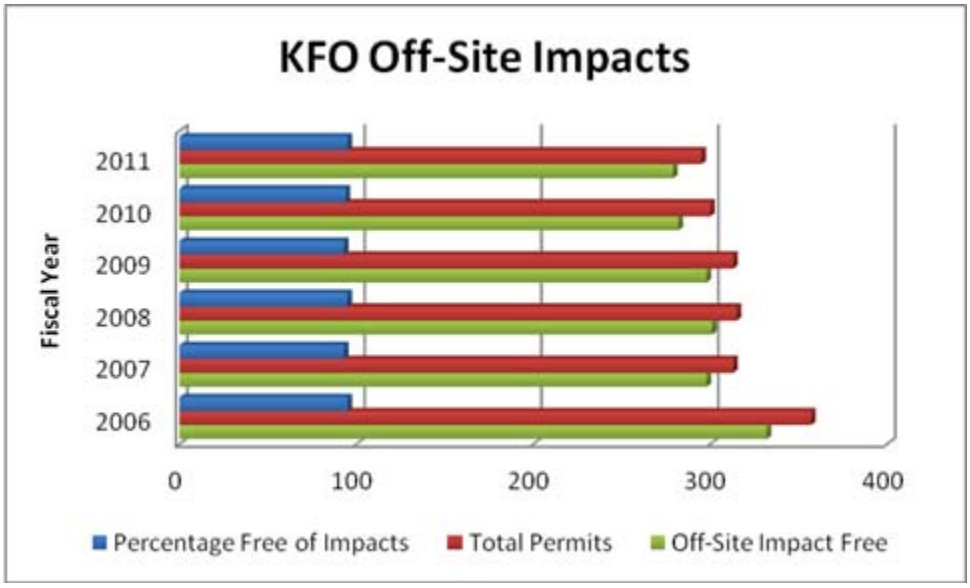
Shannon Mann worked as an administrative intern at KFO.

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

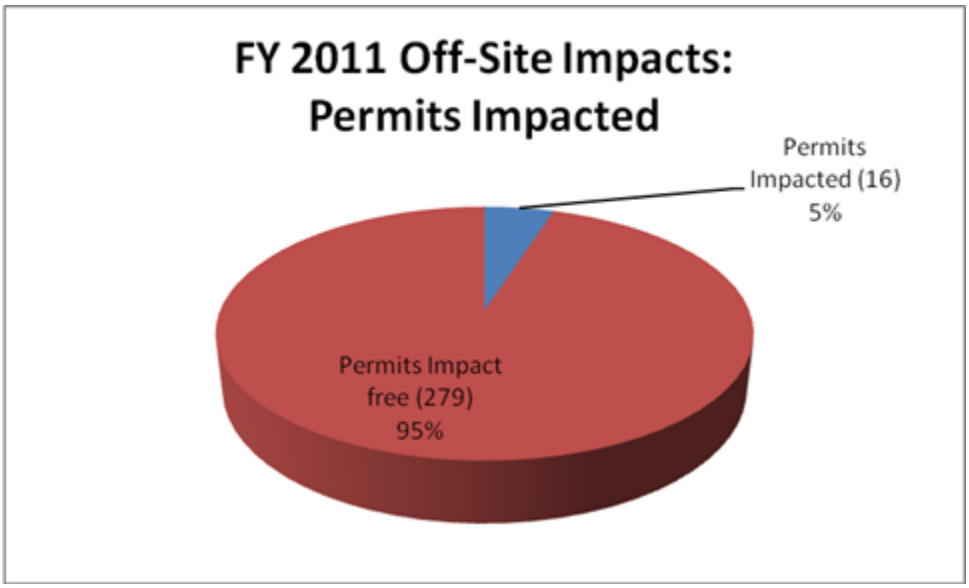
To further the concept of reporting end results, the findings from performance standard evaluations are being collected for a national perspective in terms of the number and extent of observed off-site impacts and the number of acres that have been mined and reclaimed that meet the bond release requirements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

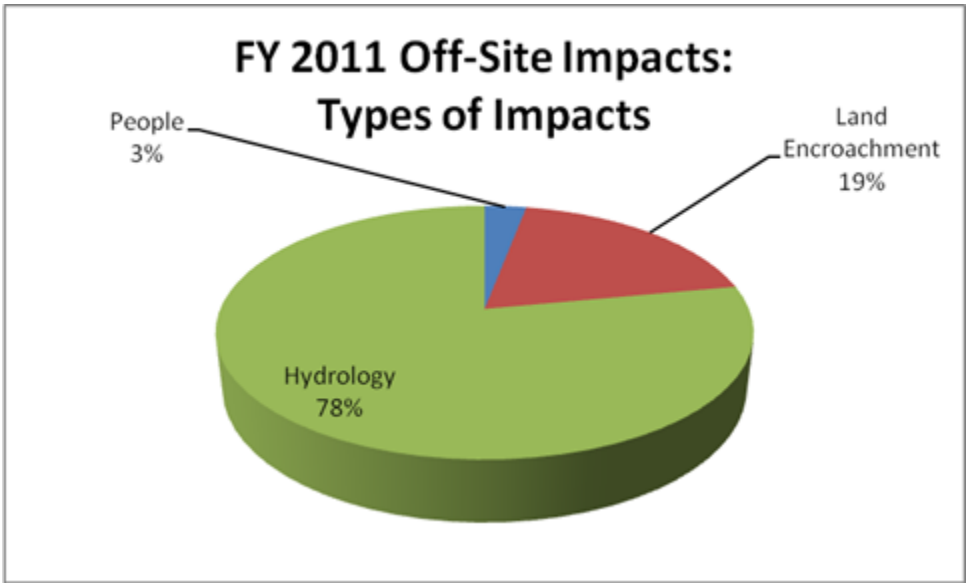
- **Off-Site Impacts**

  Active Sites - One of the intents of SMCRA is to prevent adverse affects to the public and to the environmental resources adjacent to a permitted surface coal mining operation. While conducting complete and partial inspections during FY 2011 KFO Reclamation Specialists evaluated all active mine sites for off-site impacts. Off-site impacts resulting from SMCRA violations were directly reported via the Minesite Evaluation Inspection Report (MEIR). The MEIR data was transferred to a database with a summary report developed for year-end reporting purposes. In addition to MEIR data collection, citizen's complaint files were evaluated and interviews with individual inspectors were conducted to determine if off-site impacts from other sources had occurred. During FY 2011, ninety-five percent of all active sites (or two hundred seventy nine of two hundred ninety five minesites) were free of off-site impacts compared to ninety-four percent during FY 2010.



Sixteen permits were identified as having thirty two events that impacted thirty two resources (people, land, water and structures). Twenty five off-site impacts to water occurred with seventeen minor and six moderate resulting from changes to water chemistry during mining or sediment laden run-off leaving the sites for short distances. Two major impacts to water occurred when significant rainfall events combined with inadequate sediment control measures resulted in heavy sediment deposition. Six impacts to land occurred with three minor and two moderate resulting from mining disturbances occurring outside the approved permit boundaries. One major impact to land resulted from a landslide caused by a leaking sediment basin. One minor impact to people occurred when trucks hauling refuse subjected the public to heavy dust concentrations along an unpaved public road. There were no impacts to structures reported during FY 2011.





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

During FY 2011, the KFO continued an off-site impact study to determine trends and causes of impacts occurring during the previous six years (FY 2006, 2007, 2008, 2009, 2010 and 2011). This study is discussed in detail in Section IV of this report.

An off-site impact to land resulted from a slide below a haulroad.

Bond Forfeited Sites – At the beginning of FY 2011 the KFO had three bond forfeited permanent program permits totaling one hundred twenty five disturbed acres where reclamation activities remained to be completed. During FY 2011 reclamation activities were completed at all three sites. Field inspections were conducted to evaluate and report on success in achieving contracted reclamation work. No off-site impacts were identified as occurring from these three sites during FY 2011.

West Fork, LLC, an 11 acre underground mine disturbance was reclaimed utilizing forfeited bond funds during FY 2011.

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

Reclamation success under SMCRA is measured by the bond release process with the ultimate goal of Phase III bond release. The 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 post mining land use for full liability period and supported by statistical analysis.

During the period October 1, 2010, through September 30, 2011, KFO processed forty four bond release applications. A total of sixteen release actions were approved, consisting of seven Phase I, eight Phase II, and one Phase III releases. These actions resulted in returning all or a portion of the bond on 1,159 acres of reclaimed mine lands (Appendix B, Table 6).

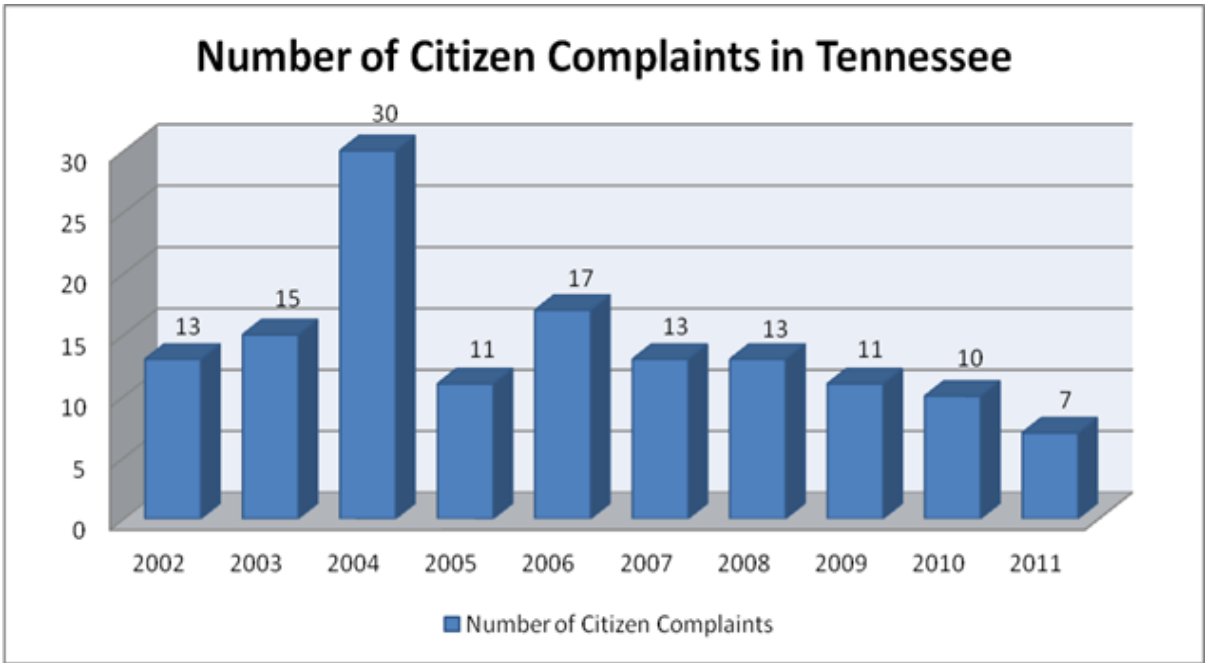
KFO policy includes a complete review of the bond release application by the assigned inspector to identify deficiencies in the application or needed reclamation work on site. Following this review, twenty two applications were returned as incomplete and six bond release applications were withdrawn. Although there were no bond release applications disapproved this year, KFO policy requires a disapproval letter to the permittee including the corrective actions necessary. The assigned inspector continues to work with the permittee to complete reclamation and achieve Phase III bond release.

- **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 OSM 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. The KFO is required to investigate these reports and respond to the citizen regarding the OSM investigative findings and actions within ten days of concluding the investigation. The citizen providing the information may also request informal review of KFO's decisions.

The KFO has experienced a steady decline in the numbers of citizens' request for inspections (citizen's complaints) in recent years. During FY 2006, KFO received seventeen requests for inspections compared to only seven requests which were received during FY 2011 or an overall reduction of fifty nine percent (see chart below).



During FY 2011, the KFO received seven citizen's complaints (four oral, two written and one e-mail). Four of these complaints alleged adverse impacts to water, one alleged early harvesting of bat trees, one alleged no blast warning signal had been provided to the public and one alleged dust impacts to the public. Six of these complaints were investigated and determined by OSM KFO to be unfounded. The complaint alleging excessive dust impacts to a public road was determined to be valid. The excessive dust situation occurred when trucks hauled material over an unpaved public road to an adjacent refuse storage area. A citizen who resided along the public road complained the situation was causing a public health hazard. Because the problem was occurring off the permit and over the public roadway enforcement action was not taken. However, the operator has implemented a schedule for wetting the public road to aid in dust suppression as necessary to alleviate the problems for the public.

During late summer in FY 2011 a citizens group established an observation camp which is located adjacent to an active coal producing surface mine in Campbell County. The camp is occupied by members of the group who conduct surveillance of mining activities in the area. Members of the group have filed three citizens complaints since surveillance activities began (two alleging water impacts and one alleging no blast warning signals provided). In responding to these complaints the OSM KFO has advised the group to remain vigilant to safety hazards which are inherent to active surface coal mining activities, particularly as mining activities advance in the direction of the observation area.

The KFO has provided responses to all complaints received during FY 2011 in accordance with the required timeframes. No requests for informal review of KFO action or inaction were received.

Notice of Intent to Sue (NOI)

On August 22, 2011 the Sierra Club, the Tennessee Clean Water Network and SOCM filed three NOIs with TDEC. Then on October 6, 2011, the same NOIs were filed with KFO. Specifically, the NOIs alleged that National Coal, LLC at the Jordan Ridge Disposal Area, permit 3148; Mine 7, permit 3154; and Mine 14, permit TN-019 has violated, and continues to violate, "an effluent standard or limitation" under Section 505(a)(l)(A) of the Act, 33 USC § 1365(a)(1)(A), by failing to comply with the terms of Tennessee Pollution Discharge Elimination System (NPDES) permits for these sites. The Plaintiffs believe National Coal, LLC is in an ongoing and continuing violation of section 301 of the Act, 33 USC§ 1311, as a result of its discharge of pollutants into Tennessee's waters in an amount in excess of the final effluent limits specified in the NPDES permits for these sites. The Plaintiffs also allege that National Coal, LLC is in violation of several conditions of its permits related to the monitoring and reporting of pollutants being discharged from the National Coal, LLC mines. In addition, they allege pursuant to SMCRA and as a result of pollution discharges from the National Coal, LLC mines that National Coal, LLC is in violation of 30 CFR §§ 817.41(a) and 817.42. Their allegation is that National Coal, LLC has repeatedly violated these provisions during the applicable terms of their SMCRA permits. They believe that National Coal, LLC will continue to violate these provisions in the future. The Plaintiffs have demanded that National Coal, LLC come into compliance or provide remedial steps within sixty days as outlined in the NOIs. If National Coal, LLC does not advise them of their steps, they will assume the violations will continue and will file a citizen suit under section 505(a)1 of the CWA and under section 520(a)(1) of SMCRA seeking civil penalties, injunctive relief, and a court order compelling National Coal, LLC to come into compliance with the law.

VI. ABANDONED MINE LANDS IN TENNESSEE

- **Title IV of SMCRA: AML Reclamation**

The Tennessee AML program receives Federal funding under the 2006 SMCRA amendment dated December 20, 2006. These changes authorized the State of Tennessee to receive minimum program funding for their approved State reclamation program. TDEC, Land Reclamation section, is the State agency responsible for receiving such AML funds and implementation of the approved Tennessee Abandoned Mine Land Reclamation (AMLR) Plan.

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 well monitored to ensure projects meet contract specifications, project objectives, and program goals.

In FY 2011, the 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 1983, TDEC's abandoned mine land reclamation program has reclaimed:

- 10.1 miles of clogged streams; 147 acres of clogged stream lands,
- 469 acres of haulroads,
- 5,611.5 acres of spoil area,
- 78 hazardous equipment facilities,
- 136.8 acres of dangerous slides,
- 1,811 acres of dangerous piles and embankments,
- 1,354.9 acres of dangerous impoundments,
- 64,379 feet of dangerous highwalls,
- 158 hazardous water bodies,
- 31.2 acres of industrial/residential waste,
- 57 mine openings; 31 vertical openings; 799 portals. (https://eamlis.osmre.gov)

- **FY 2011 Grant**

The Land Reclamation Section of TDEC was awarded an AML grant for the period February 1, 2011 to January 31, 2014, in the amount of $2,600,437 with subaccounts for $10,000 Administrative costs; $1,569,914 in Non-Water Supply Project Costs; $600,000 in Water Supply Project Costs; and $420,523 in AMD Set-Aside Costs.

TDEC requested the reallocation of funds from the administrative costs subaccount to non-water supply projects subaccount for the FY 2009 ($10,000) and FY 2010 ($8,792) grants. These amounts will be added to their respective grants.

- **Acid Mine Drainage Set-Aside**

TDEC set-aside $420,523 in AMD funds on March 31, 2011. The set-aside funding will be used to leverage matching funds from other agencies whenever possible in order to address AMD problems emanating from the Tennessee coalfields. The funds are maintained in a separate interest-bearing Tennessee Surface Mine Reclamation Fund account established under TN Code 59-8-326 which is dedicated to receive AMD set-aside funds in accordance with 30 CFR 402(g)(1) and are used solely for AMD reclamation.

- **Drawdown Analysis Review**

The Department of Treasury requires that Federal funds be requested, drawn, and expended in an administratively feasible time frame, and that funds are used for authorized purposes only. A review of TDEC's drawdowns and disbursements of OSM grant funding was included under the FY 2011 OSM/TDEC Performance Agreement. The review is to determine whether the drawdowns and disbursements of Federal funds are in conformity with the Grants Management Common Rule codified by the U.S.

Department of the Interior at 43 CFR Part 12, Subpart C; the OSM Federal Assistance Manual Chapter 5-55; and the following criteria:

- Drawdowns were limited to the minimum amount needed and timed to correspond with the actual, immediate cash requirements of TDEC in order to carry out the approved Tennessee AML Program and cooperative agreements.

- Drawdown timing and amounts were as close as administratively feasible to actual disbursement by TDEC for direct program costs and the proportionate share of any allowable indirect costs.

- Drawdowns were properly accounted for and in accordance with Federal grant and cooperative agreement funding requirements.

- **Public Outreach**

OSM solicited comments from the public and Federal and State agencies on the FY 2011 State/Federal Performance Agreement and Reclamation Plan. A copy of the agreement was placed on OSM's webpage and a 30-day comment period was opened and all comments were considered during finalization of the plan and performance agreement. The USFWS requested that OSM and TDEC work on projects that will support and protect waters of the coalfield to promote the restoration of wildlife. We assured them that we identify and share in their concerns to provide better habitat for the species within the Tennessee coalfields by restoring water quality. USFWS suggestions were passed along to TDEC for consideration in upcoming reclamation projects. Through the FY 2011 Performance Agreement, signed September 10, 2010, OSM and TDEC will continue to provide outreach to industry and citizens concerned about abandoned mine lands.

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

TDEC and KFO attended e-AMLIS training in early 2011 when the new system came online. KFO is currently approving all changes made to existing Problem Area Description (PAD) forms as well as new PADs. TDEC provides comments on each action taken within the PAD being amended. TDEC agrees to follow the provisions of OSM directive AML-1 Abandoned Mine Land Inventory System (AMLIS) which governs implementation and maintenance of the AML Inventory.

- **Title IV Reclamation Projects for FY 2011**

During FY 2011, TDEC completed the following AML projects:

Mill Creek Community Waterline Extension Project in Morgan County, TN – Reclamation complete as of May 6, 2011. TDEC utilized $173,000 from the Water Supply Project Costs subaccount and $7,000 from the Morgan County/Huntsville Utility District. The project addressed the extension of the county waterline to 16 households currently on well water affected by pre-SMCRA coal mining. Subsurface water in the

Mill Creek community is generally high in iron, manganese, and sulfur. One hundred percent of the wells sampled in the community exceeded the Secondary Drinking Water Regulation (SDWR) for iron and manganese. Sixty four people are no longer exposed to potential safety risks from abandoned mine lands with the completion of this project.

Bellview Reclamation Project in Van Buren County, TN – Reclamation complete as of June 3, 2011. Reclamation consisted of eliminating dangerous highwalls and acidic water filled pits by re-grading on-site spoil to provide positive drainage and stable slopes. This project also included the restoration of a six hundred fifty-foot section of an unnamed tributary to Samples Fork which was decimated by pre-law mining. A total of 47.4 acres was disturbed, reclaimed, and re-vegetated. This project resulted in the reduction of 1,321 people exposed to potential safety risks from AML at a cost of $435,405. One hundred fifty trees were planted using the ARRI approach. The trees were planted along the stream restoration portion of the project. These tree species will help reestablish a riparian zone as well as prevent erosion.

Pit 6 – Pre-Reclamation

Pit 6 – Post-Reclamation

Stream Relocation/Restoration of Pit 6
(Before stream shown in Pit 6 – Pre-Reclamation picture)

Pit 1 – Bellview Pre-Construction

Pit 1 – Bellview Post-Construction

- **National Environmental Policy Act (NEPA) Compliance Reviews**

  During FY 2011, TDEC submitted to OSM four new AML projects for NEPA compliance review and authorization to proceed (ATP) consideration. OSM conducted NEPA compliance reviews of the documents submitted, which include an environmental document, AML Eligibility Statement, applicable supplemental information, NEPA consultation correspondence, and a new or updated PAD. OSM issued ATP on three AML projects during FY 2011.

  New Highway 111 – Van Buren County, TN – ATP issued March 4, 2011. The New Highway 111 reclamation project is 72.9 acres of abandoned surface mines on two sites. TDEC has estimated the total project cost to be $725,000 and will use monies from the 2009 grant. The mined areas have over five acres of water-filled pits with low pH. Twenty million gallons of water in the pits will be treated and eliminated. The sites have 6,600 feet of highwall associated with the pits, some of which are within five hundred feet of New Highway 111.

  Hickory Creek Waterline Extension Project – Campbell County, TN – ATP issued June 29, 2011. The Hickory Creek project will provide potable water to seven households in the Hickory Creek Lane Community. One acre will be disturbed during the project. Many of the wells are not protected from the entry of surface and subsurface water contaminates and many have degraded water from pre-law mining. Water in the community is generally high in iron, manganese, and sulfur. Secondary Drinking Standards were exceeded in all wells for iron and manganese. The residents relate health problems and severe economic burdens to the poor water quality and quantity,

  Jellico New City Tank Landslide – Campbell County, TN – ATP issued May 10, 2011. This project was initially submitted as a possible emergency, but after review by Pittsburg was denied emergency funding. The project involves slope stabilization caused by a landslide in 2010 which occurred approximately thirty feet from Jellico's 750,000 gallon water storage tank. It is considered a Priority 2, Dangerous Slide. This project will use approximately $300,000 in AML funds.

  As of July 25, 2011, TDEC is seeking authorization to proceed on the Greasy Creek/Elizabeth Church Road Waterline Extension Project. OSM is currently conducting research on the project and its eligibility status to determine if the project meets Federal and State Laws to receive AML funding.

- **AML Non-Emergency Construction Review**

  During FY 201l, OSM conduct a pre-construction site visit to Bellview Reclamation Project on January 30, 2011. A post-construction site visit was conducted for this project on November 1, 2011. A pre-construction site visit to New Highway 111 was conducted

on February 1, 2011, and again on November 1, 2011, during construction. A pre-construction site visit for Jellico New City Tank Landslide was conducted on May 11, 2011. TDEC completed 218 site visits/inspections during FY 2011.

- **Title IV Reclamation Proposed Projects for FY 2012**

During FY 2012, the Land Reclamation Section of TDEC will be seeking Authorizations to Proceed for the following projects:

Cherry Branch Phase II Reclamation Project is eighty acres of abandoned strip mines on the Sequatchie and Grundy County line. The site has twelve water-filled pits which have low pH; most of the water-filled pits have highwalls associated with them. The pits and highwalls will be backfilled during this project.

Roseanne Ellis Reclamation Project is a twenty-acre site located in Overton County. The site has over 4,000 feet of highwalls and pits. Most of the pits have acid mine drainage associated with them. Under drains will be constructed to treat the AMD and the highwalls will be eliminated during the project.

Bellview Phase II Reclamation Project is seventy five acres of abandoned strip mines located in Van Buren County. The site has nineteen water-filled pits which have low pH, most of which have highwalls associated with them. The pits and highwalls will be backfilled during this project.

- **GIS and AML**

In FY 2011, KFO acquired a complete inventory of AML hazards in Tennessee submitted by TDEC on paper quadrangle maps. This effort entailed scanning, geo-referencing, and digitizing the AML inventory from the paper maps on loan from TDEC. KFO worked with TDEC to come up with a schema for housing the AML inventory. Digitizing of AML features has commenced. To date, fourteen quadrangles have been digitized and attributed with information provided by TDEC. Once this project is complete, the KFO and TDEC will have a complete inventory of all known AML hazards available in a geographical information system (GIS) for the State of Tennessee. This project will provide a more effective implementation of Title IV and Title V of SMCRA through improved efficiencies in determining AML site status and eligibility. This project is being utilized by KFO staff in the review process for the NCWMA LUM Petition. It will be especially beneficial in the field. TDEC is now receiving support from OSM's Technical Innovation Professional Services (TIPS) and has received GIS training which they are now using for field and office support. TDEC has provided KFO with GIS point locations for several projects. These point locations are now a part of the KFO GIS inventory.

VII. 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 OSM. Several of these technical assistance activities are cooperative efforts with the Program Support Division within ARC. During FY 2011, the Technical Group spent approximately ninety-two percent of their time on Federal program activities (including the LUM) and eight percent on technical assistance activities. The projects and activities, which involve KFO employees, are as follows:

- National Blasting Work Group
- Instructors for NTTP Training Courses
- Instructors for TIPS Training Courses
- Appalachian Regional Reforestation Initiative
- KFO Reforestation Initiative
- Stream Protection Rule and the associated Environment Impact Statement
- Technical support to OSM'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 NEPA requirements
- Technical support for joint OSM / State initiative to apply geospatial technology in implementation of the SMCRA regulatory program.
- Technical support to National Park Service and other Federal / State agencies in development of a hydrologic database for the New River watershed
- Dam Safety Team
- Image Team
- Impoundments Team

APPENDIX A

Acronyms used in this Report

Acronyms used in this Report

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 AML Inventory System
AMLR	Abandoned Mine Land Reclamation
ARCC	Appalachian Regional Coordinating Center
ARRI	Appalachian Regional Reforestation Initiative
ATP	Authorization to Proceed
AVS	Applicant Violator System
CWA	Clean Water Act
EPA	Environmental Protection Agency
EPACS	Electronic Permitting Application Control Solution
ESA	Endangered Species Act
FAM	Federal Assistance Manual
GIS	Geographical Information System
IMCC	Interstate Mining Compact Solution Commission
IUL	Inspectable Units List
KFO	Knoxville Field Office
LEAF	Leaders in Environmental Action for the Future
LiDAR	Light Detection And Ranging
LIWA	Local Interagency Working Agreement
LUM	Land Unsuitable for Mining
MEIR	Minesite Evaluation Inspection Report
NCWMA	North Cumberland Wildlife Management Area
NEPA	National Environmental Policy Act
NOI	Notice of Intent to Explore
NPDES	Pollution Discharge Elimination System
NPS	National Park Service
NTTP	National Technical Training Program
OFS	Office of the Field Solicitor
OSM	Office of Surface Mining Reclamation and Enforcement
PAD	Problem Area Description
PED/EIS	Petition Evaluation Document / Environmental Impact Statement
PIT Crew	Process Improvement Team
SMCRA	Surface Mining Control and Reclamation Act of 1977
SOCM	Statewide Organizing for Community eMpowerment

SOP	Standard Operating Procedures
TDEC	Tennessee Department of Environment and Conservation
TIPS	Technical Innovation and Professional Services
TVA	Tennessee Valley Authority
TWRA	Tennessee Wildlife Resources Agency
UMD	United Mountain Defense Fund
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish & Wildlife Service
VISTA	Volunteers in Service to America
WBS	Work Breakdown Structure

APPENDIX B

Tabular Summary of Core Data to Characterize the Program

Tabular Summary of Core Data to Characterize the Program

These tables present data pertinent to mining operations and Federal regulatory activities within Tennessee. The reporting period for the data contained in the tables is October 1, 2010, through September 30, 2011. Additional data used by KFO in its evaluation of performance is available for review in the evaluation files maintained by the KFO.

Tennessee

EY 2011, ending September 30, 2011

TABLE 1

COAL PRODUCED FOR SALE , TRANSFER, OR USE[1]

(Millions of short tons)

Calendar Year	Surface Mines	Underground Mines	Total
2010	1.246	0.585	1.831

[1]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.

Tennessee

EY 2011, ending September 30, 2011

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 1's of acres				
	Permanent Program Permits				Initial Program Sites					Permanent Program Permits (Permit Area)		Initial Program Sites		
	Active	Inactive	Aban-doned	Total	Active	Inactive	Aban-doned	Total	Insp. Units[1]	Federal Lands	State/ Tribal and Private Lands	Federal Lands	State/ Tribal and Private Lands	Total Area
Surface Mines	48	8	27	83	2	1	93	96	179	201.0	24,482.0	0.0	3,485.0	28,168.0
Underground Mines	21	11	16	48	0	0	21	21	69	160.0	853.0	0.0	147.0	1,160.0
Other Facilities	21	15	3	39	1	0	2	3	42	0.0	2,197.0	0.0	14.0	2,211.0
Total	90	34	46	170	3	1	116	120	290	361.0	27,532.0	0.0	3,646.0	31,539.0

Permanent Program Permits and Initial Program Sites:	**Total Number:** 290	**Average Acres per Site:**	108.76
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):	1.00	**Average Acres per IU:**	108.76
Permanent Program Permits in Temporary Cessation:	**Total Number:** 16	**Number More than 3 Years:**	5

EXPLORATION SITES

Number of Exploration Sites with Permits:	**Total number of permit sites:**	0	**Sites with Federal lands[3]:**	0
Number of Exploration Sites with Notices:	**Total number of notice sites:**	34	**Sites with Federal lands[3]:**	0

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

[2]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.

[3]The number of Exploration Sites with 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

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 1's of acres				
	Permanent Program Permits				Initial Program Sites					Permanent Program Permits (Permit Area)		Initial Program Sites		
	Active	Inactive	Aban-doned	Total	Active	Inactive	Aban-doned	Total	Insp. Units[1]	Federal Lands	State/ Tribal and Private Lands	Federal Lands	State/ Tribal and Private Lands	Total Area
Surface Mines	0	0	0	0	0	0	4	4	4	0.0	0.0	0.0	127.0	127.0
Underground Mines	0	0	0	0	0	0	2	2	2	0.0	0.0	0.0	14.0	14.0
Other Facilities	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
Total	0	0	0	0	0	0	6	6	6	0.0	0.0	0.0	141.0	141.0

Permanent Program Permits and Initial Program Sites:	**Total Number:** 6	**Average Acres per Site:**	23.50
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):	1.00	**Average Acres per IU:**	23.50
Permanent Program Permits in Temporary Cessation:	**Total Number:** 0	**Number More than 3 Years:**	0

EXPLORATION SITES

Number of Exploration Sites with Permits:	**Total number of permit sites:** 0	**Sites with Federal lands[3]:**	0
Number of Exploration Sites with Notices:	**Total number of notice sites:** 0	**Sites with Federal lands[3]:**	0

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

[2]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.

[3]The number of Exploration Sites with 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

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

Tennessee
EY 2011, ending September 30, 2011

TABLE 4

PERMITTING ACTIVITY

Type of Application	Surface Mines			Underground Mines			Other Facilities			Totals		
	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres[1]	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres
New Permits	2	1	520	2	0	0	0	0	0	4	1	520
Renewals	1	2		0	2		9	6		10	10	
Transfers, sales, and assignments of permit rights	4	3		7	3		4	5		15	11	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										0	0	
Exploration notices[2]											12	
Revisions that do not add acreage to the permit area		91			18			5			114	
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	11	16	45	5	4	6	0	0	0	16	20	51
Totals	18	113	565	14	27	6	13	16	0	45	168	571

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:	162.0
Permits in temporary cessation	Notices received:	8	Terminations:	5
Midterm permit reviews completed that are not reported as revisions	Number:	11		

[1]Includes only the number of acres of proposed surface disturbance
[2]State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

TABLE 5

OFF-SITE IMPACTS
EXCLUDING BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	3	0	0	0	1	1	1	0	0	0	0	0	0
Hydrology	26	0	0	0	0	1	0	17	6	2	0	0	0
Encroachment	1	0	0	0	1	0	0	0	0	0	0	0	0
Other	2	0	1	0	1	0	0	0	0	0	0	0	0
Total	32	0	1	0	3	2	1	17	6	2	0	0	0

Total Number of Inspectable Units[2]: 295
Inspectable Units with one or more off-site impacts: 16
Inspectable Units free of off-site impacts: 279 % of Inspectable Units free of off-site impacts[1]: 95

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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Number of Inspectable Units[2]: 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[1]: 100

Tennessee
EY 2011, ending September 30, 2011

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	3	0	0	0	1	1	1	0	0	0	0	0	0
Hydrology	26	0	0	0	0	1	0	17	6	2	0	0	0
Encroachment	1	0	0	0	1	0	0	0	0	0	0	0	0
Other	2	0	1	0	1	0	0	0	0	0	0	0	0
Total	32	0	1	0	3	2	1	17	6	2	0	0	0

Total Number of Inspectable Units[2]: 298
Inspectable Units with one or more off-site impacts: 16
Inspectable Units free of off-site impacts: 282 % of Inspectable Units free of off-site impacts[1]: 95

[1] % of Inspectable Units free of off-site impacts is based on the number of Inspectable Units at the end of the Evaluation Year. The number of Inspectable Units may vary during the Evaluation Year.

[2] Total number of Inspectable Units is (1) the number of Inspectable Units at the end of the Evaluation Year and (2) the number of permanent program permits terminated under Phase III bond release during the Evaluation Year and (3) the number of Initial Program Sites with jurisdiction terminated during the Evaluation Year and (4) the number of bond forfeiture sites that were reclaimed during 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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Number of Inspectable Units[2]: 6
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[1]: 100

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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Number of Inspectable Units[2]: 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[1]: 0

Georgia
EY 2011, ending September 30, 2011

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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Number of Inspectable Units[2]: 6
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[1]: 100

[1] % of Inspectable Units free of off-site impacts is based on the number of Inspectable Units at the end of the Evaluation Year. The number of Inspectable Units may vary during the Evaluation Year.

[2] Total number of Inspectable Units is (1) the number of Inspectable Units at the end of the Evaluation Year and (2) the number of permanent program permits terminated under Phase III bond release during the Evaluation Year and (3) the number of Initial Program Sites with jurisdiction terminated during the Evaluation Year and (4) the number of bond forfeiture sites that were reclaimed during the Evaluation Year.

Tennessee

EY 2011, ending September 30, 2011

TABLE 6

SURFACE COAL MINING AND RECLAMATION ACTIVITY							
Areas of Phase I, II, and III Bond Releases During the Evaluation Year (EY)							
Phase I Releases	**Phase II Releases**		**Phase III Releases**				
Total Acres Released in Approved Phase I Releases	**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**	**Total Acres Released During the EY**	
605		92			92	**Phase I**	789
	138			70		**Phase II**	208
			162			**Phase III**	162
Cumulative Total Acres Released under All Bond Release Phases at the End of the Evaluation Year						1,159	
Number of Permanent Program Permits Terminated under Phase III Bond Release and Initial Program Sites with Jurisdiction Terminated During the Evaluation Year						5	

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 and Cumulative Area Bonded for Disturbance	21,486	21,895	571
Area Bonded for Disturbance without Phase I Bond Release	0	17,663	17,663
Area Bonded for Disturbance for which Phase I Bond Release Has Been Approved	4,095	4,369	274
Area Bonded for Disturbance for which Phase II Bond Release Has Been Approved	1,594	1,645	51
Total Area Bonded for Disturbance	5,689	23,677	17,988
Area Bonded for Remining	0	0	0
Areas of Permits Disturbed by Surface Coal Mining and Reclamation Operations			
Disturbed Area	0	435	435

TABLE 7

BOND FORFEITURE ACTIVITY
(Permanent Program Permits)

Bond Forfeiture and Reclamation Activity	Number of Sites	Dollars	Acres
Sites with bonds forfeited and collected that were un-reclaimed at the start of the current Evaluation Year (i.e, end of previous Evaluation Year) [1]	3		125
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	3		125
Sites with bonds forfeited and collected that were un-reclaimed at the end of the current Evaluation Year [1]	0		0
Sites with bonds forfeited but un-collected at the end of the current Evaluation Year	0		0
Forfeiture Sites with Long-Term Water Pollution			
Bonds forfeited, lands reclaimed, but water pollution is still occuring	5		
Bonds forfeited, lands reclaimed, and water treatment is ongoing	0		
Surety/Other Reclamation Activity In Lieu of Forfeiture			
Sites being reclaimed by surety/other party at the start of the current Evaluation Year (i.e., the end of previous Evaluation Year) [2]	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 [3]	0		0
Sites being reclaimed by surety/other party at the end of the current Evaluation Year [2]	0		0

[1] Includes data only for those forfeiture sites not fully reclaimed.
[2] Includes all sites where surety or other party has agreed to complete reclamation and the site is not fully reclaimed.
[3] These sites are also reported in Table 6, Surface Coal Mining and Reclamation Activity, because Phase III bond release would be granted on these sites.

Tennessee

EY 2011, ending September 30, 2011

TABLE 8

REGULATORY AND AML PROGRAMS STAFFING	
Function	**Number of FTEs**
Regulatory Program	
Permit Review and Maintenance	10.00
Inspection	11.00
Other (supervisory, clerical, administrative, fiscal, personnel, etc.)	13.00
Regulatory Program Total	34.00
AML Program Total	1.00
TOTAL	35.00

Tennessee

EY 2011, ending September 30, 2011

TABLE 9

FUNDS GRANTED TO STATE OR TRIBE BY OSM (Actual Dollars Rounded to the Nearest Dollar)			
Type of Funding	**Federal Funds Awarded**	**Total Program Cost**	**Federal Funds Awarded as a Percentage of Total Progam Costs**
Regulatory Funding			
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	4,600,437	4,600,437	100
Watershed Cooperative Agreement Program	0	0	
TOTAL	4,600,437		

Tennessee

EY 2011, ending September 30, 2011

TABLE 10

STATE OR TRIBAL INSPECTION ACTIVITY

Activity Status	Permits and Sites: Number of Permits and Sites	Complete Inspections: Inspections Required Annually	Complete Inspections: Approximate Number of Required Inspections[1]	Complete Inspections: Number of Complete Inspections Conducted	Partial Inspections: Inspections Required Annually	Partial Inspections: Approximate Number of Required Inspections[1]	Partial Inspections: Number of Partial Inspections Conducted
Approximate Number of Required Inspections of Permanent Program Permits							
Active	90	4	360		8	720	
Inactive	34	4	136		0	0	
Abandoned	46	1	46		1	46	
Approximate Number of Required Inspections of Initial Program Sites							
Active	3	2	6		0	0	
Inactive	1	2	2		0	0	
Abandoned	116	1	116		1	116	
Inspections Conducted and Approximate Number Required on All Permanent Program Permits and Initial Program Sites							
Total Active	93		366	389		720	916
Total Inactive	35		138	138		0	18
Total Abandoned	162		162	11		162	1
Total	290		666	538		882	935
Exploration Sites with Permits and with Notices							
All Exploration	34			65			24

[1] The number of required inspections are approximations because part way through the Evaluation Year sites may change "activity status" or become eliminated because final Phase III bond release was approved or the regulatory authority terminated its jurisdiction under the Initial Program. Likewise, as new permits are issued throughout the Evaluation Year, the number of Permanent Program Permits would increase, but only some of the "Inspections Required per Site Annually" would be required for those sites permitted part way through the year. Additionally, some sites may be consolidated into one inspectable unit, thus one inspection may cover multiple sites.

Georgia

EY 2011, ending September 30, 2011

TABLE 10

STATE OR TRIBAL INSPECTION ACTIVITY							
Permits and Sites		**Complete Inspections**			**Partial Inspections**		
Activity Status	**Number of Permits and Sites**	**Inspections Required Annually**	**Approximate Number of Required Inspections[1]**	**Number of Complete Inspections Conducted**	**Inspections Required Annually**	**Approximate Number of Required Inspections[1]**	**Number of Partial Inspections Conducted**
Approximate Number of Required Inspections of Permanent Program Permits							
Active	0	0	0		0	0	
Inactive	0	0	0		0	0	
Abandoned	0	0	0		0	0	
Approximate Number of Required Inspections of Initial Program Sites							
Active	0	0	0		0	0	
Inactive	0	0	0		0	0	
Abandoned	6	1	6		1	6	
Inspections Conducted and Approximate Number Required on All Permanent Program Permits and Initial Program Sites							
Total Active	0		0	0		0	0
Total Inactive	0		0	0		0	0
Total Abandoned	6		6	0		6	0
Total	6		6	0		6	0
Exploration Sites with Permits and with Notices							
All Exploration	0			0			0

[1] The number of required inspections are approximations because part way through the Evaluation Year sites may change "activity status" or become eliminated because final Phase III bond release was approved or the regulatory authority terminated its jurisdiction under the Initial Program. Likewise, as new permits are issued throughout the Evaluation Year, the number of Permanent Program Permits would increase, but only some of the "Inspections Required per Site Annually" would be required for those sites permitted part way through the year. Additionally, some sites may be consolidated into one inspectable unit, thus one inspection may cover multiple sites.

Tennessee

EY 2011, ending September 30, 2011

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	**Number of Actions [1]**	**Number of Violations [1]**
Notice of Violation	44	61
Failure-to-Abate Cessation Order	7	9
Imminent Harm Cessation Order	0	0
[1] Does not include actions and violations that were vacated.		

Georgia

EY 2011, ending September 30, 2011

TABLE 11

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	**Number of Actions [1]**	**Number of Violations [1]**
Notice of Violation	0	0
Failure-to-Abate Cessation Order	0	0
Imminent Harm Cessation Order	0	0
[1] Does not include actions and violations that were vacated.		

Tennessee

EY 2011, ending September 30, 2011

TABLE 12

LANDS UNSUITABLE ACTIVITY		
Activity	**Number**	**Acres**
Petitions Received	1	
Petitions Rejected	0	
Petitions Accepted	1	
Decisions Denying Petition	0	
Decisions Declaring Lands Unsuitable	0	0
Decisions Terminating Unsuitable Designations	0	0