Greetings Members and Friends of the Association,

I would like to thank the Texas Rail Road Commission, Melvin Hodgkiss and in particular Mark Rhodes and Roni Anson from the AML section for hosting an excellent winter business meeting in Austin, Texas. There is no hospitality like Texas hospitality!

### Issue Updates

In March on behalf of the Association and with the assistance of Greg Conrad and Steve Hohmann I provided a statement to the Senate Interior Appropriations Subcommittee on the Office of Surface Mining’s FY 07 proposed budget. On a positive note, the proposed budget calls on Congress to re-authorize the AML fee collections and requests an interim extension of fee collections to September 30, 2007. However the lack of adequate AML funding has been and continues to be the greatest barrier to reclamation of abandoned mine lands for state and tribal AML programs. I believe this funding issue must be addressed if we are to enhance the ability of the states and tribes to get more work done on-the-ground within the foreseeable future.

Although OSM’s budget overview shows $145.2 million for state and tribal reclamation grants, that figure is misleading, as it does not account for money that will go to Clean Streams and Emergency Programs. Assuming that OSM will fund Emergency Programs at the same level as last year and the Clean Streams Program at the projected amount of 6.9 million, the funding for state and tribal AML reclamation grants will be cut from $145.4 million down to the projected $127.2 million shown above.

OSM’s proposed budget for FY 07 also includes an increase over the FY 06 budget of $688,000 to cover increases in OSM’s fixed costs. These include and cover expenditures such as vehicle purchases, building rent, increased fuel costs, etc. States and tribes have also seen dramatic increases in these expenses, as well as tremendous increases in the table below shows the steady erosion of appropriations for state and tribal AML reclamation grants over the past few years:

<table>
<thead>
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<th>Fiscal Year</th>
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* $12.5M in special funding to PA
** $0.5M in special funding to PA
construction materials, yet our grants include no increase to cover these additional costs.

Also in March, the Interstate Mining Compact Commission and the Western Governors Association were invited to testify at a hearing held by the House Transportation and Infrastructure Committee on the barriers to cleaning up abandoned mine sites. Both testimonies promoted Good Samaritan legislation at the national level. Pennsylvania currently has a state law in place known as the Environmental Good Samaritan Act that provides protections and immunities to those who were not legally liable but voluntarily performed abandoned mine reclamation or abated mine drainage. Nationally, Senators Allard and Salazar of Colorado have introduced S.1846 entitled The Cleanup of Inactive and Abandoned Mines Act. The Association needs to closely follow this development, as Good Samaritan legislation will be an important benefit to all states and tribes with AML issues.

Again, I want to thank the Association for the opportunity to serve as its President.

Mark Mesch, President

28th NAAMLP Conference
Billings, Montana September 24 - 27, 2006


The abandoned mine land project is a no-cost agreement between DMME and Red River Coal Company. The students planted 1400 trees, including oaks, ash, white pines, and blight resistant American chestnuts.

On April 7, 2006, 110 secondary school students from Wise County and the City of Norton celebrated Arbor Day by planting trees on mined land adjacent to the Powell River Project (PRP) Research and Education Center in Wise County, Virginia. The tree planting took place on an abandoned mine land (AML) project that is being reclaimed through a partnership between the Virginia Department of Mines, Minerals and Energy (DMME) and Red River Coal Company. The students planted 1400 trees, including oaks, ash, white pines, and blight resistant American chestnuts.

The abandoned mine land project is a no-cost agreement between DMME and Red River Coal Company. Through this agreement, the company uses excess spoil from its surface mine to backfill the abandoned benches and restore an approximate original contour. All of the reclamation costs, with the exception of tree planting, are paid for by the company. The agreement eliminates the company’s need to construct fills and accomplishes reclamation of sites that otherwise would likely never be reclaimed.

One highlight of the day was planting American chestnuts on the reclaimed AML site. The Office of Surface Mining (OSM) donated the chestnuts, which came from a blight resistant parent.

“The Arbor Day celebration is an event of the Appalachian Regional Reforestation Initiative (ARRI), a partnership to promote reforestation on permitted coal mines and abandoned coal mine sites. Sponsors of the event included the Virginia Department of Forestry, OSM, the Powell River Project, and DMME.

During the event, DMME recognized Sigmon Coal Company for their achievements with reforestation. Sigmon Coal won the ARRI award for AML reclamation through its implementation of the forestry reclamation approach on an AML project in Lee County, Virginia.
The Huntington area of western Arkansas is home to extensive abandoned surface and underground mining. Features of these mines have been well known, and routinely visited, by the local population. Several hundred acres of the abandoned surface mines have yielded to the reclamation efforts of both the Arkansas Department of Environmental Quality (ADEQ) and the Natural Resources Conservation Service (NRCS), individually and jointly. One of the largest remaining tracts was the most difficult to address. This was principally due to the re-routing of approximately 1,000 feet of Cherokee Creek through spoil piles by the mining company in the 1970’s. Alteration of the creek left the channel void of structure and variation found in natural streams typical of this Ouachita mountain area. And with a 25 square mile watershed above the project, the flood height on a choked Cherokee Creek was exasperated. Restoration for the creek was finally provided with the 112 acre Huntington Town West AML project which also addressed 3,000 feet of dangerous highwall, five hazardous waterbodies, 75 acres of steep piles and embankments, and nearly 3 miles of readily accessible all-terrain roads that traversed the project area.

Early design work for the restored creek channel involved researching the historical routing and surveying upstream reaches. Pre-mining USGS topographic maps provided an approximate location, along with other pre-mining drainages critical to the design. Upstream reaches provided invaluable insight into the natural fluctuations, shape and structure of the creek, riffle/pool conditions and vegetation species. Design assistance was drawn from a sister state agency as well as experience within the Water Division of ADEQ. The US Army Corps of Engineers also reviewed and visited the site prior to design work, providing input as well as regulatory approval on the needed stream characteristics and construction process. Physical design characteristics were subsequently calculated and compared to the natural areas. The final routing of the 1,000 foot section followed the historical location as much as possible with the resulting design being focused on meanders, curvature, flow depths, riffles and pools along with native species of shrubs and trees to be planted in the riparian areas. Diversity of aquatic habitat was further improved by increasing the depth of an upstream backwater pool area. Upstream flooding was alleviated by including an adequate floodplain in the creek’s cross-section throughout its traverse of the project.

Axioo Construction, Inc. of Mulberry, AR was the low bidder with a contract cost of $1,264,605 and work began in October, 2004 on the 1,314,473 cubic yard project. Following the reconstruction of Cherokee Creek, naturally occurring vegetation was already working to establish itself even before the plantings undertaken by the project.

In addition to the improvement of riparian areas with the creek reconstruction, a major drainage pattern which originally flowed into the lower end of the creek section was also restored to pre-mining conditions. This returned sorely needed drainage to a small subdivision adjacent to the project. And, by eliminating the dangerous highwall and attractive challenges for all-terrain and off-road vehicles, the safety of the area has been greatly enhanced.

Charles McCool, AR AML Program

Aerial View of the Pre-Mining Conditions
Cherokee Creek is seen entering from the left and leaving from the top.
The Kentucky Division of Abandoned Mine Lands (DAML) recently completed the Belfry Slide AML Reclamation Project. The project is located in northeastern Pike County in the community of Belfry, near the KY/WV border. Numerous complaints had been received from citizens over the past ten years expressing concern over Priority I landslides and drainage problems. AML undertook a geotechnical investigation in November of 2003 to provide a determination as to the eligibility of the numerous complaints to past mining. The geotechnical investigation was completed in January of 2004 and AML made a determination that the project was eligible for funding. Design work immediately began and was completed in April of 2004 and work soon began for compliance with the National Environmental Policy Act (NEPA). Authorization to Proceed (ATP) was obtained from the Office of Surface Mining (OSM) in July of 2004. Plans and specifications were finalized and prepared for bidding and bids were received in September of 2004 with construction soon following in October of 2004. The final phase of construction was completed in April of 2006.

The Belfry Slide AML project presented many challenges to the Kentucky Division of Abandoned Mine Lands. Fuller, Mossbarger, Scott, and May Engineers of Lexington, Kentucky completed the geotechnical investigation that revealed some abnormally deep colluviums situated on the steep hillsides near the Belfry community. General site geology shows the project site to be underlain by the Lower Breathitt Formation that consists of interlayered beds of sandstone, siltstone, and coal. The primary coals seams are the Alma seam and the Pond Creek Coal seam. Drainage from abandoned underground mine works in these seams was determined to be the cause of the instability in the area. The geo-technical investigation utilized slope inclinometers to determine failure planes in the slide. Four houses were being structurally damaged by the slide. One house had already been relocated and approximately 20 other houses were in danger of losing access. An interim OSM emergency project built a 60 ft. long retaining wall to keep one of the toe bulges from one of the failure planes from further encroaching onto one of the homes.

The design proposed constructing five (5) retaining walls to stabilize the landslide and ensure the safety of the residences. The design/construction plans called for the dewatering of the mined area and the walls to be constructed in series to minimize the chance of mass movement resulting in damage to the residences. The walls were constructed in the following order: Wall B, A, E, D, and C.

**Wall B** was constructed in the county road in front of the Earl Scott residence midway in the slide. The wall was 260 feet long and consisted of 36-inch piles, 45 feet deep tied together with a two feet by four feet reinforced concrete cap buried beneath the road surface. The piles were constructed of steel cages and reinforced concrete. The piles were embedded 7 feet into rock, on average.

**Wall A** was constructed at the toe of the landslide. The 170-foot wall consisted of 24-inch piles, 25 feet deep with a 6-foot cap. The piles were constructed of steel cages and reinforced concrete. There is also a 5-tier, 14-basket gabion wall on top of the concrete cap. This wall was anchored 10 feet into rock.

**Wall E** is located behind the Virginia Runyon residence. This wall was proposed as a 4-tier, 10-basket wall, but due to the location of the landslide being close to the residence and the contractors ability to quickly construct concrete walls, it was changed to a 104 feet long, 8 feet high concrete wall with rail steel anchored into rock and into footer. This was anchored approximately 10 feet into rock.

**Wall D** was a concrete retaining wall behind the Johnson, Smith, and Farris residences. This wall was 200 feet long, with an 8 feet high concrete stem and footing tied to 36-inch piles, 60 feet deep on 4-foot centers. The wall was backfilled with Class II channel lining. The wall was anchored into rock on each end but had to be “floated” in the center where the ninety feet deep soils were encountered.

**Wall C** was proposed as a 36-inch pile, 60 feet deep on 4-foot centers with a concrete cap. The proposed location was in front of the Johnson and Smith residences. After evaluation of the success of the other walls and due to the location of the septic systems in the front yard, this wall was relocated to the road in front of the residences to stabilize the road and the residences. The 140 feet long wall consisted of 24-inch piles, 40 feet deep on 6-
foot centers with a 3-foot cap below the road surface. The piles averaged six feet embedment into rock.

While in the process of working the job, an area along the lower county road below the toe of the slide collapsed due to the weight of construction equipment. DAML installed an additional concrete wall 6 feet high and approximately 100 feet long in order to stabilize the road and stream channel. During the process of moving the landslide, the Earl Scott residence began moving (sliding down the hill). DAML constructed a concrete wall approximately 80 feet long, 6 feet high, below his residence in order to stop the movement. This wall consisted of drilling and placing rail steel 10 feet into rock and anchored into footer, and placing Class II backfill behind the wall.

The construction phase of the Belfry Slide AML Project concluded in mid-April of 2006. The system of retaining walls that were built at the Belfry site have stabilized the hillside and prevented further structural damage to four homes. The mine seam is being dewatered by the horizontal bore and minimizing further saturation of the deep colluvial soil. Access has been restored and maintained to approximately twenty homes. The Belfry Slide AML Project is a superb example of the high priority problems that have been abated by the Abandoned Mine Land Program. The Belfry abatement work saved four residences from almost certain destruction and maintained stability for 20 other homes that may have been eventually abandoned.

Chuck Easterling and Bob Scott, KY AML Program

AML Can Extend Beyond Mines

The Alaska AML Program at one time had a 400 square foot room chock full of digitizing tablets, drafting tables, light tables, scanners, plotters, five computers and an electric 6-foot capacity paper cutter. The only people who ever used the room were the six field staff (now three) in the AML Program and the two (now three) employees in the A&E Program. How things have changed in just over a year’s time.

The AML and A&E staffs still have access to the same tools and capabilities, but the room has been transformed into a training room being used by a wide variety of other Department of Natural Resources Divisions and other groups as well. Instead of being so cluttered that it was hard to walk through, the room is now set up with four computer tables on either side of the room with a dozen computers for students networked with both the State of Alaska and OSM Denver Field Office servers via separate password protections with the capability of adding an additional four to eight laptops for larger groups. White boards and a ceiling mounted computer projector with pull-down screen are at the instructors’ disposal.

The basic equipment required for routine use by the Program staff is now situated as a primary location in a cubicle immediately adjacent to the training room where classes can utilize the output devises during class projects and other DNR users can access them as well when needed to facilitate their work. The AML Program is no longer considered a world unto its own in Alaska, but has evolved into an integral part of the DNR sphere.

In the meantime work continues in the field with the next phase of fire mitigation ($3.3 million) on a fire burning through a spoil pile in a heavily used recreation area north of Anchorage scheduled to begin in early May. Planning for the rest of the needed program action in the entire drainage area where the spoil pile is situated is continuing so we will know how best to group the work for maximum efficiency in contracting. Being a minimum program state often requires novel approaches and function over aesthetics, at which we are becoming expert.

If anyone wants to volunteer to come up and research two partially collapsed portals for us, we would enjoy making the opportunity available as both are occupied bear dens and none of our own staff has thus far decided that we need to take a much closer look than 20 feet from the entrances with rifle in hand. We would provide a strong flashlight and .44 magnum revolver for any volunteers to use during their site examination! No information is available on how the flash of a camera might impact lightly sleeping bears though so additional definitive information on that topic might be developed during the evaluation process.

Joe Wehrman, AK AML Program

Old mines lure bears in Alaska
Navajo Coal Fires

Window Rock, AZ (Navajo Nation) - The natural carved formation made of gray and white clay creates a natural beauty called “Bisti tah” (Badland) and Chaco River Valley, a scenic attraction that many tourists travel to northern New Mexico for viewing and photographing. There is a small Navajo community called Burnham, with approximately 200 Navajo families residing within a 25 mile radius along the historic highway 666 (renamed to Highway 491) which is north between Gallup and Shiprock, New Mexico. Within the Burnham area lies a large coal reserve with an estimation of over 2 billion tons. Currently, there are three large strip mining operations on the Navajo reservation with approximately 18 million tons of coal that is mined on an annual basis. The coal strip mining industries contribute to the economy of the Navajo Nation and provide coal to operate three (3) power plants which light-up the Western United States and the surrounding areas. The Navajo Nation also receives Mineral Royalty Payments and AML funds through coal taxes pursuant to the Surface Mining Control and Reclamation Act (SMCRA) of 1977.

In 2004, Navajo AML was notified by the Burnham Chapter (local governmental institution) that a dangerous coal outcrop fire existed alongside a heavy traveled U.S. Bureau of Indian Affairs (BIA) road used on a daily basis by the local community. Navajo AML, without hesitation, declared this project high priority, due to frequent signs of visitation by the public, livestock and wildlife were evident around the coal burning area. The coal outcrop fire reclamation project was grouped with other shallow open coal pits within the vicinity. Three (3) other project areas were included with the Burnham AML Coal Reclamation Project. The projects addressed approximately 33.6 acres, which included 17.2 acres of open pits, 16 acres of gob (coal) piles at over 36,000 bcyds, and 16 acres of re-vegetation. The coal outcrop fire was relatively shallow, less than 15 feet, and may have started from lightening or burning trash. This project was completed within 15 calendar days using a basic cut and fill methodology. The excavated material was thoroughly mixed with water and natural soil to ensure the fire was out. This was the first coal fire project addressed by the Navajo AMLR Program.

Looking south at the coal outcrop fire line. Fire is progressing to the west. You can see the ash to the left and the smoke in the middle and the natural ground to the right.

Looking to the north at the early stages of the coal outcrop fire excavation with a bulldozer. The water truck is nearby for dust suppression. Due to the amount of ash and high heat present, this was a slow excavation process.

In 2005 a local individual reported that another coal outcrop fire was burning near their residence located on a flat plain adjacent to Chaco River. The second coal fire project consisted of

(Before) Looking to the northeast. The combination of the excavator and bulldozer are excavating the coal fire seam while the water truck is providing water from an above bench. The excavation process is being performed in a series of cuts working up to three (3) levels. Following the full excavation, the overall area was backfilled with a series of natural benches for drainage control.
A subsurface coal fire located in the banks of a natural drainage ravine leading to Chaco River. It contained coal refuse, highwalls, rimstrips, coal refuse piles, and a natural coal outcrop fire as well as a solid waste dump, which had physical and environmental hazards.

The reclamation project utilized a cut and fill method. The goal was to excavate the overburden material down to the coal seams and burning coal refuse which was estimated at over 26,000 sq. ft. and using ample amounts of water (25 gallons per cubic yard) to extinguish the fire. The burning coal seam was approximately 6 feet thick and had an overburden cover of approximately 20-30 feet. This project took approximately 45 calendar days for completion. Over 20,000 bcyds of earthwork were involved and 500 linear feet of highwalls were addressed. The post-reclamation contouring incorporated natural looking cliffs with native rock. Overall, these projects within the vicinity of Burnham Chapter were very successful.

**Harlan Charley, Navajo AML Program**
Senior Public Information Officer: hcharley@frontiernet.net

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**Garrison, North Dakota - AML Project Ends With A Surprise**

A 2005 abandoned mine reclamation project near Garrison, North Dakota ended with an unexpected turn of events when fresh gasoline was discovered in an underground mine void. This gasoline was traced to a leak of approximately 30,000 gallons from an underground storage tank at a gas station located about 900 feet away.

Dangerous sinkholes have been a frequent problem for the residents of Garrison (population 1318) as shallow abandoned underground coal mines have deteriorated with time and collapsed. At least two major highways and three residential and commercial subdivisions at Garrison are underlain by relatively shallow abandoned underground coal mines. The North Dakota Public Service Commission has conducted reclamation projects since 1983 to repair sinkholes and inject cementitious grout to fill underground mine voids and prevent mine collapse.

The 2005 Garrison Phase IV project was the last phase of drilling and pressurized grout remote backfilling to address the highest priority AML problems at Garrison. In this four-year project series, approximately 1400 holes were drilled and 4800 cubic yards (8400 tons) of grout were pumped into collapsing underground mines beneath homes, streets and highways.

The final work in the 2005 Garrison project included drilling exploratory holes to determine the location of underground mine workings beneath a vacant lot near South Garrison Addition. The owner of this lot had intended to build a house on it. Drilling confirmed the presence of shallow underground mines and also revealed that these mine voids were filled with gasoline. Drilling was halted because of the danger of ignition and samples were collected from the hole, confirming the presence of gasoline.

This finding was turned over to the North Dakota Department of Health. The Health Department’s investigation revealed that gasoline had leaked from a ruptured line between a storage tank and dispenser at a nearby gas station. About the same time gasoline was discovered in the mine, Garrison city workers began noticing the smell of gasoline in storm sewers and at a municipal lift station. Unfortunately, leak detection equipment at the gas station failed to detect this leak. It’s possible that the gasoline seeped to a shallow coal seam and into the mine and sewer system without pooling at the surface or moving laterally.

The Health Department is using drilling and monitoring data collected in the Garrison AML projects to aid its investigation. An environmental consultant has also been contracted by the gas station to investigate and remediate the leak. One domestic water well has already been affected and several others are being monitored.

**William E. Dodd**, Environmental Scientist
North Dakota Public Service Commission
Abandoned Mine Lands Division

**Drilling on Garrison Project**

(After) Looking to the northeast. The final contour of the coal outcrop fire with multiple benches for drainage control installed. Some revegetation was implemented and overall rough grading installed.
New Mexico AML Program Producing Mine Safeguarding Movie

The New Mexico AML program is making a documentary video on mine safeguarding, entitled Hidden Dangers: The Legacy of New Mexico’s Abandoned Mines. The movie is being produced with a local consulting company which has extensive experience in filming documentaries, as well as experience in public outreach.

The movie is intended for all audiences, but is geared more towards a mature audience, with the hope that it might be shown on PBS. While our focus is mine safety and safeguarding techniques, we are incorporating other topics to provide a broader overview. These include history, archaeology, and biology. We are currently still conducting interviews of AML staff, as well as non-AML specialists in these other fields. The consultant will then use the interviews to produce a narrative for the film.

As of the end of March, we have conducted 12 interviews and filmed at various locations around the state. Locations include both open and closed abandoned mines, highlighting dangers and different safeguarding techniques. Still to be filmed is Scott Altenbach, UNM biologist, who conducts our bat surveys. Scott

“Coalfield Communications” A Hit
OSM’s New Class Scores

A new course offered by OSM’s National Technical Training Program (NTTP) is receiving widespread praise from recent participants. Initially, OSM offered the “Coalfields Communications” class last fall as a pilot course. The first full scale class offering occurred on April 4-7 in Covington, KY, near Cincinnati.

Five different instructors engaged 26 participants during the three day Covington course. Instructors covered topics that included public outreach, public meetings, media communications, and crisis communications. Students were placed in small groups for several exercises including one that simulated government response to a citizen fatality from a surface mine blasting accident. The exercises were designed to be appropriate to the real world that governments operate in today.

Although the course was originally developed for management and public information personnel, anyone in mining reclamation can benefit from attending. The Covington class had widespread attendance from both the AML and coal regulatory programs. Likewise, participants came from all levels of government.

Remarks overheard at the conclusion of the class seemed to concur that the course was timely, useful, and well-instructed. Camille Lane, from Kentucky DNR, said, “OSM has put together an excellent course for staff that deals with the public whether it is a public meeting or answering questions from the media.”

Ms. Lane’s comment seemed to reflect the overall sentiment of all the class participants.

Steve Hohmann, KY AML Program

Coalfields Communications students in class

NEWSLETTER ARTICLE SPECIFICATIONS

400 - 500 words. Articles subject to editing. Submit in e-mail or hard copy, 2 photo limit. Include author’s name, title of article, captions for photos. Submit photos in TIF (preferred) or JPG format, 300 DPI, and original photo size. E-mail photos as individual files, not embedded. Deadline for the Fall edition is November 15, 2006.

Email articles to steve.hohmann@ky.gov or mail articles to:
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