

NAAML P

NATIONAL ASSOCIATION OF ABANDONED MINE LAND PROGRAMS

NEWSLETTER
Fall 2017 Vol. 39 No. 2

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UPCOMING MEETINGS

Winter Business Meeting
 San Antonio, Texas
 Feb 5 - 6, 2018

MISSION STATEMENT

1. To provide a forum to address current issues, discuss common problems and share new technologies regarding abandoned mine land reclamation;
2. To foster positive and productive relationships between the states and tribes represented by the Association and the federal government;
3. To serve as an effective, unified voice when presenting the states’/tribes’ common viewpoints; and
4. To coordinate, cooperate and communicate with the Interstate Mining Compact Commission, Western Interstate Energy Board and all other organizations dedicated to wise use and restoration of our natural resources.

Dear NAAML P Members, friends and partners,

I would first like to thank those of you who invested the time and finances to attend the recent NAAML P conference in Lexington, Kentucky. The NAAML P conferences continue to be a great value for all who attend with beneficial exchanges of technical expertise and a platform for collaboration. To my colleagues who elected me president of the NAAML P Association at the annual business meeting, I say thanks for your confidence and thanks, in advance, for your patience. The upcoming year promises to have many challenges that will continue to require the full engagement of all the member states and tribes.

For outgoing President Justin Ireys, of Alaska, I express my sincere gratitude for his guidance of the Association through a very busy year. Justin’s willingness to be a servant leader from the most distant location of the member states and tribes demonstrates his high regard for the Association and the work that we can accomplish together. He overcame the difficulties of time zones and travel to keep things rolling, while all the time directing the Alaska program forward. I am already relying on his wisdom and lessons learned, just as he relied on Chuck Williams. And to my fellow employees from Kentucky’s Abandoned Mine Land (AML) Program, I want to say thanks for a job well done on hosting the NAAML P conference.

Greg Conrad and Ryan Ellis of the Interstate Mining Compact Commission (IMCC) organized and moderated the AML Summit held in Washington DC on December 13th and 14th. NAAML P attendees included: Eric Cavazza (PA), Travis Parsons (WV), and Bob Scott (KY) from the Appalachia Region; Susan Kozak (IA), Marvin Ellis (IN), and Jeff Butler (AL) of the Mid-Continent Region; and Madeline Roanhorse (Navajo), Jeff Graves (CO), Alan Edwards (WY), and Dana Dean (UT) of the Western Region. Key personnel from the Office of Surface Mining and Reclamation Enforcement (OSMRE) were also in attendance. Some of the issues discussed included Re-Authorization, E-AMLIS, Oversight/Program Implementation Issues, and other key legislative issues facing our organization. I encourage each of you to reach out to state and tribal representatives that attended and share your concerns and viewpoints on the issues as these will be discussed in great detail at the upcoming winter business meeting.

2017 NAAML P Conference Tour - Natural Bridge



The NAAML P Winter Business meeting is being organized by Cory Gretlein of Texas AML and will be held on February 5-6, 2018, in San Antonio, Texas, at the Menger Hotel. Committee meetings and special sessions will begin on Monday morning, February 5th and the full winter business meeting will be on Tuesday, February 6th, beginning at 8:00 A.M. and running until 5:00 pm. Additional information regarding the winter business meeting is included in this newsletter.

I hope each of you will stay engaged in events current to the Association as we move through this coming year and the many uncertainties that face our AML programs. Autumn Coleman (NAAML P vice-president), Travis Parsons (NAAML P secretary/treasurer) and I look forward to the challenges of serving you in the coming year as we continue to reclaim and restore the historic coal mines spread throughout our great nation.

Sincerely,

Bob Scott, NAAML P President



NAAML P Officers



Robert F. Scott, Director

Kentucky Department for Natural Resources, Division of Abandoned Mine Lands

Bob has served as Director of the KY Division of Abandoned Mine Lands since March of 2012. He is a graduate of the University of Kentucky with a B.S. in Civil Engineering. He is a licensed Professional Engineer and Professional Land Surveyor.

Mr. Scott began his career with the Division of Abandoned Mine Lands (AML) in 1983 as an Engineer in Training and worked for the Division until September of 2008 retiring as Assistant Director. He then worked for a private engineering firm where he designed municipal waterline projects in Knott and Perry Counties, completed mine permitting packages and designed AML reclamation projects. Mr. Scott returned to state government in September of 2011 with the Kentucky Department of Fish and Wildlife Resources as an Engineering Consultant until he was recruited to return to AML as its director.

Autumn Coleman, Program Manager

Montana Department of Environmental Quality , Abandoned Mine Lands Program

Autumn has been the Program Manager for the Abandoned Mine Lands Program since 2014. Autumn has a B.S. in Soil Science and a Masters' Degree in Engineering and Project Management from Montana State University. Prior to the Abandoned Mine Lands Program, Autumn was a Soil Scientist/Hydrologist with the Forest Service, a Rule Manager with the Public Water Supply Section an Abandoned Mine Lands Project Manager and Environmental Enforcement Specialist with DEQ. She is the Montana delegate for NAAML P and is honored to serve as the Association's Vice President. Autumn stays busy working to form new watershed partnerships to re-think funding for abandoned mine reclamation projects.



Travis Parsons, Planning Administrator

West Virginial Department of Environmental Protection Office of Abandoned Mine Lands

Travis joined the West Virginia Abandoned Mine Lands Program in 2010, and became Planning Administrator in 2013. Prior to AML, Travis was a Quality Assurance Inspector in Solid Waste Permitting, and a Regional Coordinator for Educational Outreach and Volunteer Programs of the WV DEP. Travis has a B.S. in Recreation, Parks and Tourism Resources from West Virginia University. Travis is the Alternate West Virginia Delegate for NAAML P, and currently serves as the Association's Secretary-Treasurer. Travis takes pride in the beneficial impact AML offers the state of West Virginia, and nationwide.

2017 NAAML P Conference, Lexington, Kentucky



Finally, having the opportunity to meet and interact with attendees, participating in national award presentations, and visiting with our vendors/presenters provided a great reward for those of us tasked with the effort. It was a real pleasure. Hopefully, in the future, each of you has the opportunity to visit Kentucky again. And, if you didn't make it to this year's conference, please take a look at Virginia's event for next year. It's going to be exceptional.

With warm regards,

A handwritten signature in black ink, appearing to read "Justin Adams".

Justin Adams

The National Conference not only demonstrates the best of AML reclamation efforts across the nation but also highlights the greatest asset these programs have to offer, dedicated individuals. Ultimately, the experienced and energetic people are the beating heart of passionate work in each program. Only a few moments of interaction with them reveals the great commonalities of like-minded individuals from a variety of backgrounds, all focused on the similar goals of reclamation and environmental protection.

More than 300 folks gathered at the conference, creating an assembly of collective knowledge and great ideals. Technical sessions offered the opportunity to delve into details of tested techniques and discuss new efforts on the front line. Tours provided opportunities for KY AML to showcase a fraction of the natural beauty, interesting sites, and technically advanced operations across the Commonwealth. Discussions about projects, initiatives, and processes could be found in every corner. Networking opportunities provided a spectrum mix, from catching up with old friends to meeting new people with very different perspectives. Monday's awards banquet and the Tuesday BBQ were opportunities for some welcome fellowship among friends and colleagues.

Environmental Scientist Consultant
Kentucky Division of Abandoned Mine Lands



Conference Tour Day

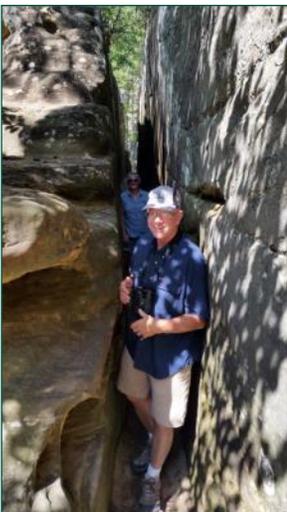


The Kentucky Division of Abandoned Mine Lands planned tours to highlight the beauty of Kentucky and everything our state has to offer. For early risers the first tour was out of the gate at 7:00am and headed to Louisville. It started with a tour of Churchill Downs, home of the most exciting two minutes in sports, the Kentucky Derby. A visit to Megacaverns was next on the list. An old limestone quarry under the city of Louisville that's been converted into an underground adventure park with a ropes course, BMX biking and zip lining. The Louisville Slugger Museum was everyone's favorite stop where they did some early Christmas shopping for their own personalized Sluggers.

The most heavily attended tour was the visit to Natural Bridge, facilitated by a ride on the Natural Bridge Sky Lift which is in its 50th year of operation. This tour offered tremendous views of the scenic areas and an opportunity to experience the geologic formations that have attracted visitors to the area for over a century. The technical highlight of the tour was a visit to the Estill County Refuse Enhancement Project, along the Kentucky River, near Irvine, KY. Equally interesting was the Limestone Legacy tour which visited Keeneland, horse farms and other businesses around Lexington. This tour focused on the geology of the area, the karst topography and its role in shaping the Bluegrass Region. There was discussion of the role limestone plays in both the history of the region and the current industries.

The Restoration Rides tour visited the Cane Run Watershed, running through Lexington's beautiful Horse Park and the Royal Springs Aquifer. This watershed supplies drinking water for Georgetown, Kentucky and includes the Kentucky Horse Park. The tour also visited the largest manufacturing plant in North America, the Georgetown, Toyota plant. We had a trip planned to UK's Underground Blast Lab, but was cancelled due to a roof fall. Instead, the tour visited Ward Hall, an antebellum summer home for Junius Ward, and then the Georgetown Municipal Water & Sewer Service. The uniqueness of Georgetown's water supply lies in the Royal Spring Aquifer. This aquifer is part of a karst system which begins near Rupp Arena (Hyatt Regency) downtown Lexington, Kentucky.

Down Town Branch was for anyone who didn't want to spend a day on a bus. There was some history at the Mary Todd Lincoln house and then over to the Town Branch Distillery, named for Town Branch stream that runs under Lexington (that was the technical part of this tour). The day finished off with good food and music down at Manchester Music Hall. Thanks for visiting and we hope you had a great time.





NAAML P Scholarship Awards

Kyle Wagner, Southern Illinois University - Mid-Continent Region

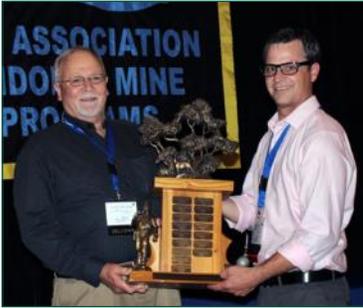
Kyle is a senior at Southern Illinois University – Carbondale studying Environmental Engineering, with a current GPA of 3.853. He will graduate in May, 2018, and wants to pursue a career in the area of land reclamation and environmental engineering. He has completed two summers interning for Peabody Energy in Evansville, Indiana. His duties included land reclamation, topographical mapping, stream layout and design and various other duties in the area of reclaiming land from closed mining sites. He is an avid hunter and fisherman and has competed in two national competitions with the bass fishing team for SIU Carbondale. He has held numerous leadership roles in his fraternity, Alpha Gamma Rho, as well as with the bass fishing team.

Bethany Witter, Virginia Tech - Eastern Region

Bethany is entering her third year at Virginia Tech, majoring in Mining and Minerals Engineering with a minor in Green Engineering. Working towards entering a master’s program to specialize in mine reclamation. “In the summer of 2017, I had an incredible engineering internship with Newmont Mining Corporation at the Carlin Surface Location. In the future, I intend to have more internship experiences to broaden my perspective, including dredge mining. I am excited to see their environmental implications and potential. I am interested in making innovative, new techniques for remediating severely disturbed lands, returning them to a beautiful and productive state.”

Jeana Ratcliff, Montana State University- Western Region

Jeana is entering her final year as an undergraduate at Montana State University, earning degrees in Civil Engineering (Bio-Resources focus) and Land Rehabilitation. For the past two summers, she has worked in Wyoming at large surface coal mines as an environmental engineering intern, gaining valuable and relevant industry experience. During her time as an intern, Ms. Ratcliff worked on many facets of mine site environmental management, including designing a pilot program to optimize revegetation of tree species utilizing GIS programs and existing soils data. Ms. Ratcliff has also worked with the USDA Animal and Plant Health Inspection Services as a technician, conducting rangeland grasshopper surveys and working with bio-control insect species. She has further experience working with bio-control insects in the MSU Insect Quarantine Lab as a research assistant. In addition, Ms. Ratcliff is heavily involved with her university’s chapter of Engineers Without Borders, and traveled to western Kenya in 2016 to serve as the technical lead for implementation of a community water supply project. Ms. Ratcliff is looking forward to a career that will support sustainable resource extraction for generations to come.



Stan Barnard Award - Chuck Williams

Chuck is a dedicated public servant committed to the elimination of health and safety hazards and the restoration of environmental degradation resulting from abandoned and un-reclaimed coal mining sites located across the coal fields of Alabama. He has not only worked on abandoned mine land issues in Alabama, but has been involved in national AML issues by actively serving as Alabama's delegate to the National Association of Abandoned Mine Land Programs (NAAMLPL) for many years. He's a vocal and accomplished member of NAAMLPL who always shares his perspective and sage advice during NAAMLPL business meetings. He has the unique ability to both instigate conversation and facilitate diverse opinions. Chuck has been a long-

standing member of the NAAMLPL Finance Committee and in that capacity has worked to ensure that the Association applies its limited funding wisely and in the best interest of AML programs across the country.

Chuck was elected to the post of Secretary/Treasurer of the Association in 2013, Vice President in 2014 and President in 2015. Under his leadership the National Association of Abandoned Mine Land Programs remained steady and worked collectively to meet the challenges brought on by a host of AML issues and initiatives being pursued or considered at the national level. These included the Abandoned Mine Land Economic Revitalization or AMLER proposal; the first version of the federal RECLAIM Act (a.k.a: The Revitalizing the Economy of Coal Communities by Leveraging Local Activities and Investing More Act); the first year of the AML Pilot Program; continued federal budget sequestration; reauthorization of SMCRA Title IV; various issues related to federal budgets and associated continuing resolutions; and OSMRE oversight issues. In his various NAAMLPL officer roles, Chuck helped guide the states' advocacy for AML funding and legislative priorities. Chuck's leadership skills during these years provided a positive and influential impact on the direction of NAAMLPL.

During his presidency, Chuck guided the program to a clear resolution supporting Reauthorization of Title IV of SMCRA, a large lift considering all of the diverse opinions in the association. He was considerate of the needs of each regional grouping of states and tribes and worked toward a unifying voice in the association. At the 2016 NAAMLPL Conference in Montana he was easily one of the most polished and outstanding speakers and wooed even Montana's governor with his charm. That is typical of Chuck, warm, kind and witty. The kind of leader anyone would be proud to serve.

Dave Bucknam Award - Jay Hawkins

Jay is by degree and experience a hydrologist that believes that the best decisions are science based with the analysis grounded in tried and true technologies. Thus he has provided support as an instructor (Underground Mining Technology" and "Forensic Hydrology Investigations") and course lead for NTTP for over 20 years. He has instructed multiple sessions of these two classes every year, and was one of the main developers of the "Forensic Hydrology Investigations" class.



Jay is Chief of the Water, Geographic and Geologic Branch for the Technical Support Division of OSMRE in Pittsburgh where he has become an ambassador for NTTP and TIPS programs encouraging his staff to become active in many facets of these programs as instructors, service managers, software leads, and training advocates providing them with his success stories as an instructor and course lead. As an instructor, Jay has consistently achieved high ratings from his fellow students. He is passionate about imparting his technical proficiency to staff that desire to learn, believing that the most important asset to our programs is properly trained staff. He saw the need for and was one of the main developers of the Forensic Hydrology Investigations class. He has continued as lead instructor, even after taking a management position with OSMRE.

It is not unusual for Jay to assist his students with technical questions long after the class is over. As a result, he has become a technical mentor for numerous state and OSMRE hydrologists across the country. He is a prolific writer having authored and published over 40 scientific publications and keeps abreast of scientific findings and technology advances related to the field of hydrology of mined lands. He doesn't just believe it is the right thing to do to impart knowledge, he lives it every day and not just when in a classroom.

The Huling Branch AML Reclamation Project, Pennsylvania

National Award Winner

The Huling Branch AML Reclamation/ ATV Recreation & Watershed Improvement Project was one of the most extensive and complex surface mine reclamation projects undertaken by the Pennsylvania Abandoned Mine Land (AML) program to date. The project addressed three major concerns that were associated with the 103-acre AML site located in the heart of Pennsylvania's 307,140-acre Sproul State Forest, maintained by the Pennsylvania Department of Conservation and Natural Resources (PA DCNR), Bureau of Forestry.

The first and primary concern was to eliminate four Priority 2 near vertical dangerous highwalls from past surface mining in excess of 70 feet in height and a combined length of over 6,000 linear feet. Associated with the four highwalls was a massive 103-acre Priority 3 spoil area containing a large amount of acid forming materials. During the surface mining, collapsed entries discharging highly contaminated acid mine drainage (AMD) from previously underground mined areas were intersected. The backfilling and reforestation plan reclaimed the highwall and spoil areas by utilizing both the Forestry Reclamation Approach and conventional backfill/compaction methods. Located around and on top of the project areas were segments of the 50-mile-long PA DCNR Whiskey Springs All-Terrain Vehicle (ATV) trail system and a 40-acre ATV "play area." Recreational use of the trail system and play area attracted intense public visitation

to areas off the designated trail to highwall and spoil areas. Unauthorized use of the AML site by ATV riders and others resulted in numerous accidents and injuries, several requiring a life flight helicopter to transport the victims. The reclamation plan eliminated access to unauthorized riding areas and re-established and maintained portions of the Whiskey Springs ATV trail impacted by project construction.

The second concern was to maintain and re-establish 3.6 miles of the construction site access that is a segment of the Whiskey Springs trail system. Portions of the project area were intersected by the ATV trail. The trail is open for recreational use from Memorial Day to the last weekend in September and is reopened mid-January to April 1. Portions of the trail are also used for the annual Rattlesnake National Enduro which is the 5th of 9 rounds of the 2017 Kenda American Motorcyclist Association (AMA) National Enduro Championship Series. The national race begins in Cross Fork, PA, one-half hour north of the Huling Branch AML project. The project is contributing to increased economic and recreational opportunities and benefits northcentral Pennsylvania while improving the overall safety for users of the Whiskey Springs ATV trail.

The third and final concern was to reduce AMD impacts upon both surface and groundwater discharges emanating from the project site. This was achieved through alkaline addition and other AMD source abatement/amelioration techniques including hydrologic controls, and removal and/or special handling of acid forming materials. While it was clear that design elements of the project aimed at addressing AMD sources would not completely eliminate those impacts, incorporating these measures into the project plan would result in a long term reduction in pollution load and reduce the scope and complexity of future AMD treatment and watershed restoration work.



**Pennsylvania Department of
Environmental Protection
Bureau of Abandoned Mine Reclamation**

Bell Central School Project, Kentucky

Appalachian Region Award Winner

The project is located about three miles south of Pineville, KY. The project developed in response to a request for DAML assistance with a serious landslide that was undermining the school access road, parking area, sidewalks and facility illumination system.

The Division of Abandoned Mine Lands determined that the landslide and the related problems were linked to eligible, underground mining drainage. A comprehensive reclamation plan was designed and approved in the late spring of 2014.

A \$2,132,348.00 contract was awarded to Jackson and Jackson Reclamation Services, INC. of Fall Rock, KY for the following:

1. Stabilization and reclamation of the aforementioned landslide.
2. Re-construction of the affected school access road, parking lot and sidewalks.
3. Total re-vegetation of the project disturbance.

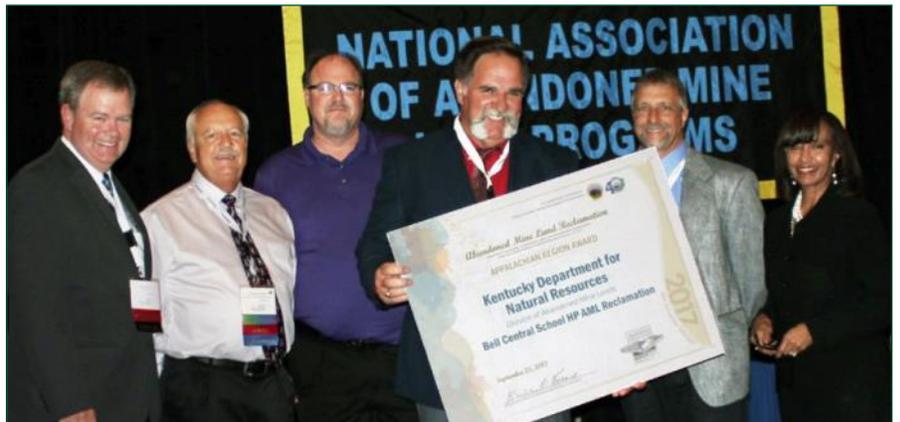
Construction work began on August 20, 2014 and was successfully completed on August 10, 2015. The goals and objectives of the project were fully met. The landslide was abated in a timely manner and all work was completed, under budget, for a total cost of \$1,922,416.18.



The Jackson and Jackson contractors produced excellent results from start to finish, with no disruption to the school programs or to their extra-curricular activities and sporting events.

When it was all said and done, it was the combined, cooperative efforts of the contractor and the DAML project management team that resulted in a noteworthy success story at the Bell Central School.

Kentucky Department for Natural Resources Division of Abandoned Mine Lands



The Sugar Ridge Fish and Wildlife Area 2 AML Site 2083, Indiana



Mid-Continent Region Award Winner

The Sugar Ridge Fish & Wildlife Area 2, AML site 2083 project reclaimed significant safety and environmental problems, employed innovative use of technology and effective geomorphic design, contained special considerations, and benefited the community. The project included the elimination of a 3,500 foot long, 25-35 foot high, dangerous highwall, almost 45,000 cubic yards of coarse refuse, acid mine drainage, an acid pit, and hazardous structures. The project included the innovative use of technology for the bathymetric survey of the abandoned mine pit bottom. It also utilized effective geomorphic design for the earthwork. The disposal of the coarse refuse into the bottom of the abandoned mine pit provided on-site construction difficulty as the pit was continuously receiving water from another abandoned mine pit 3,800 feet away via an abandoned underground mine. Special and unique considerations included a construction in a floodway permit from the INDNR Division of Water for having 1.4 square miles of drainage area and the coordination with State Fish & Wildlife non-game personnel to relocate Eastern box turtles.

The project eliminated the safety and environmental problems while providing enhanced recreational and agricultural opportunities for citizens. This project increased public awareness of the Surface Mining Control and Reclamation Act (SMCRA) and exceeded the spirit and intent of SMCRA for its wide public impact and multitude of issues solved.

Indiana Department of Natural Resources Abandoned Mine Land Program

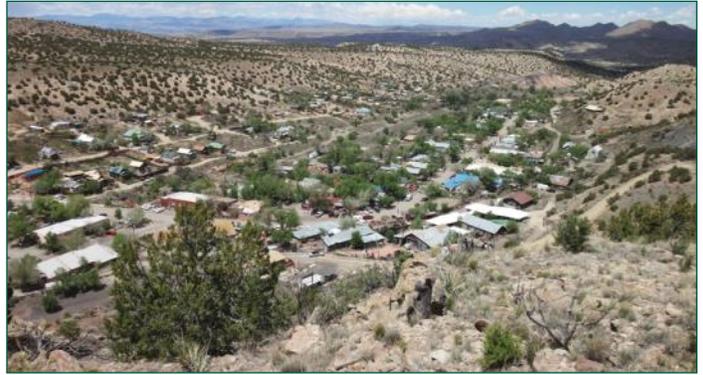


Madrid Low Impact Stormwater Project, New Mexico

Western Region Award Winner

While the New Mexico Abandoned Mine Land Program has worked extensively in the historic coal mining community of Madrid since the 1980s, in 2010 and 2011 the Program, its consultants, residents, local civic groups, and several agencies participated in a coordinated community planning effort to find comprehensive solutions to Madrid's legacy coal problems. One of the highest priority concerns identified by the community regarded issues arising from stormwater drainage off the gob piles and historic built environment. During intense storms, gob piles throughout the town produce significant sediment and runoff that impacts homes, businesses, roads and drainage structures. While the Program was developing context-sensitive low impact stormwater alternatives, an extreme storm event in 2013 caused severe flooding and gob erosion, washing coal gob and debris into local homes and businesses, particularly at the Mine Shaft Tavern and Museum Complex.

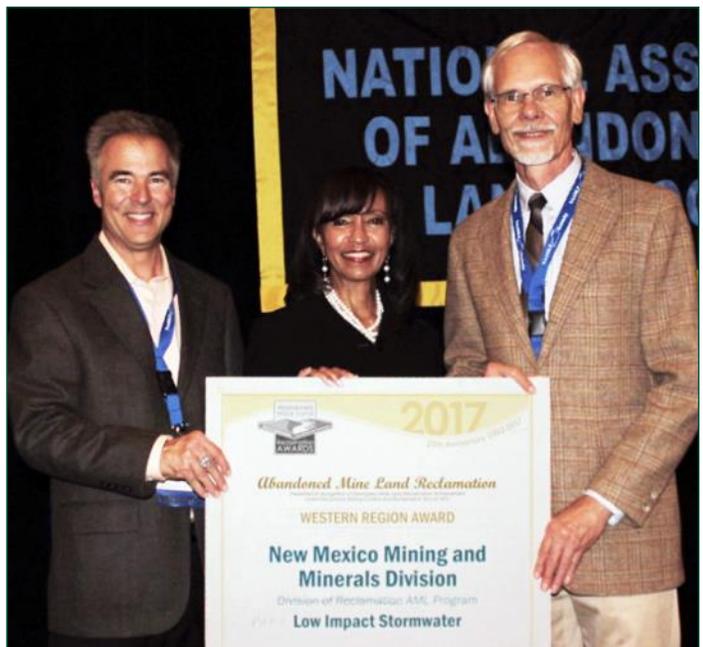
Working quickly, the AML Program completed an emergency project in October 2013 constructing temporary protection measures along properties at the base of the eroded gob piles and roads to protect homes and businesses from further damage.



Madrid is listed on the National Register of Historic Places and relies upon its historic character: particularly the visual aspects the mining landscape such as the gob piles and historic structures to attract tourism. Following the emergency project, extensive consultation and planning by AML compliance staff and its Contractors refined Low Impact Development (LID) based solutions that enabled construction of erosion control and stabilization measures during a two phased construction approach between 2014 and 2016.

This project focused on low impact reclamation practices, planning, and cultural resource mitigation efforts that AML and its contractors used to alleviate the impacts of stormwater and sediment runoff in the Madrid Historic District while maintaining community and agency reclamation goals, and preserving Madrid's historic landscape.

New Mexico Mining and Minerals Division Abandoned Mine Land Program



Hurricane Fork Gob Pile Project, Virginia

Small Project Award Winner

The single, worst, mine related impact in an entire southwest Virginia watershed is no more. The innovation of a high-tech power plant, the commitment of a company and the creative use of the AML enhancement rule led to an historic environmental improvement to the uniquely biodiverse Clinch River. A stream was delisted, over 10 acres of gob removed and, most importantly, the threat to human health and safety was erased with reclamation. Over three hundred elementary students from Russell County schools added the final reclamation touches on April 27 by planting 1500 native hardwood seedlings on the reclamation project.

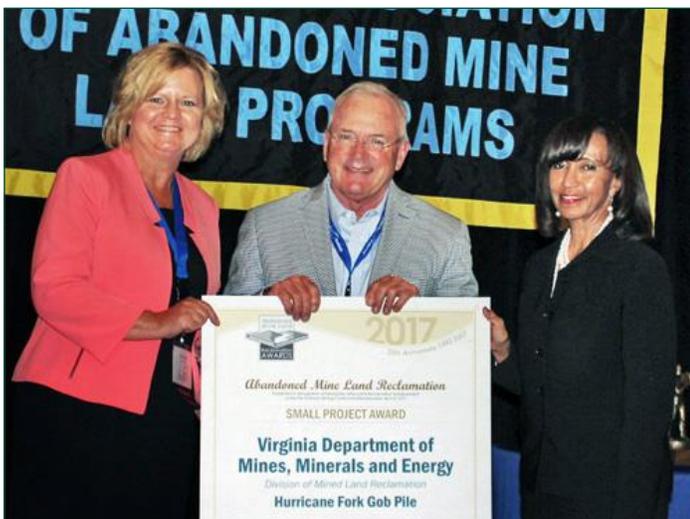
The difficulty for this project was maintaining the commitment until necessary partners were secured. The DMME funding of \$420,000 is viewed as the agency's best investment of AML funds to eliminate mining related impacts and improve environmental quality in the Clinch River watershed. As the gob pile is completely removed, the landscape returns to its natural state and conforms to the original contours. In addition to the environmental benefits, the project also supported twenty jobs for a two- year period.

Hurricane Fork is the largest tributary to Dumps Creek, which flows into Clinch River at Carbo. The Virginia Department of Environmental Quality (DEQ) had included Dumps Creek on the state's list of 303d impaired streams, meaning the water quality did not support a healthy community of benthic species. As part of the Total Maximum Daily Load for Dumps Creek, DEQ prepared an Implementation Plan for the Dumps Creek watershed describing needed actions to accomplish water quality improvement and eventually delist Dumps Creek from the 303d list. DMME conservatively estimated over 100 tons of sediment eroded each year from the Hurricane Fork pile.



Dumps Creek is a tributary to the Clinch River, the largest stream in the coalfields of southwest Virginia. Today, the river is nationally known as a biodiversity hotspot. The Clinch contains the nation's greatest concentration of rare and imperiled freshwater animals. Supporting up to 46 species, at least 24 of which are in danger of extinction, the Clinch River is habitat to rare mussels, colorful minnows and darters, and excellent sport fish. At a river location just downstream of the Virginia Tennessee state line, the Clinch boasts the greatest diversity of freshwater mussels of any stream on earth. The Nature Conservancy has listed the Clinch River as the number one hotspot for threatened biodiversity.

Virginia Department of Mines, Minerals and Energy Division of Abandoned Mine Lands



NAAML P Hardrock Abandoned Mine Land Reclamation Award

Remediation of Contamination Impacting the Environment or Human Health Award - Montana

Akron Mine and Mill Reclamation Project – North Pile

Large scale abandoned mine land reclamation was completed at the Akron Mine and Mill site (Site) near the town of White Pine, Colorado during the 2015 and 2016 construction seasons. The site is located at the headwaters of Tomichi Creek, which is tributary to the Gunnison River in the Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forests. This discussion will focus on north pile actions where Trout Unlimited worked with federal, state, and private partners to complete a non-time critical removal action. Efforts focused on relocating and consolidating 127,000 cubic yards (CY) of contaminated mine tailings and waste rock containing



high levels of lead and other heavy metals. These tailings and waste material reached heights of 50 ft. and abutted Tomichi Creek for long stretches of 1,100 ft., thus historically confining the drainage without an accessible floodplain. Two large repositories were created to house 40,000 CY of tailings/waste, while the remaining 87,000 CY was consolidated and capped with two feet of clean fill at re-contoured slopes of 4.5:1 out of the floodplain. This action then allowed for the creation of an accessible floodplain with widths ranging from 60 to 80 ft. based on historic 100- 500 yr. flood return periods. On-site woody material, rock, and over 150 willow bulb transplants were then used to stabilize the newly created floodplain, while a hummocking technique was also performed to stimulate plant and seed growth across the site.

Mine Restoration Project, TROUT UNLIMITED

Remediation of Physical Safety Hazards Award - Colorado

Buckingham Park Mine Closure

Abandoned mines pose safety and liability issues throughout Colorado. Colorado's rich mining history left more than 23,000 old mines scattered across the State. The Buckingham Park Mine Closure Project includes 27 hazardous mine openings located in Boulder County, Colorado. The mine features are located in drainages along James Creek, Fourmile Creek, Lefthand Creek and Sherwood Drive. These sites are abandoned hard rock gold and silver mines that operated predominantly between the 1890s and the early 1900s. Many of the features are in close proximity to private residences, and nearly half of the sites are in close proximity to Buckingham Park and designated camp sites that are heavily used by recreational tourist. The Division of Reclamation, Mining and Safety (DRMS), working in conjunction with the U.S. Office of Surface Mining, the United States Forest Services and Boulder County Open Space, safeguard the entrances of hazardous inactive and/or abandoned mine openings using grates, bat grates and backfill.

DRMS utilized Colorado Correctional Industries (CCI) as the general contractor for the Buckingham Park Project. Since 1977, CCI (a division of the Colorado Department of Corrections) has worked to improve the lives of incarcerated men and women, reduce the tax burden of Colorado citizens and assist the CDOC in addressing the safety and well-being of citizens, victims, staff and offenders. The opportunities for self-improvement and meaningful work skills provided by CCI for incarcerated offenders help prepare these individuals for returning to free society.

The Buckingham Park Project required a CCI crew that consisted of eighteen (18) offenders and two (2) supervisors. The crew were able to camp for many nights near the project site before returning back to prison. Most of the sites were difficult to reach and required hand labor. Two of the mine sites required the CCI crew to fabricate a make-shift bridge to cross James Creek. The remoteness of such projects tends to only leave a handful of contractors willing to do the work, potentially increasing the cost of the project. Project partners, including the USFS and Boulder County Open Space, also contributed greatly to the project resulting in significant savings of OSM dollars, which in turn can be applied to other safeguarding projects in Colorado.



Colorado Division of Reclamation, Mining and Safety



Winter Business Meeting, February 5 - 6 2018 MENGER HOTEL | SAN ANTONIO, TEXAS

San Antonio's 300-year history began in May 1718 with the founding of the San Antonio de B exar Presidio and Mission San Antonio de Valero (now the Alamo), whose inhabitants helped lay the foundation for the eclectic art, diverse culture and stunning innovations that have become signatures of life in San Antonio. The following centuries saw the tiny collective grow to become the seventh-largest city in the country and a major contributor to the advancement of Texas arts, tourism, cuisine and technology. Today, San Antonio is a city that revels in performances, parties and its ever-colorful character. We hope you'll join us for the dynamic events and special exhibitions of our yearlong Tricentennial celebration and help pay tribute to our past as we look excitedly toward our future.

BOOK ROOMS AT MENGER HOTEL | TAKE A TOUR

800-345-9285 - Mention "NAAML 2018 Winter Business Meeting" for group rate of \$134/night.

Menger Hotel - 204 Alamo Plaza, San Antonio, Texas 78205
Phone: 210-223-4361 Reservations: 800-345-9285
Room Block - Monday Feb. 5th and Tuesday Feb. 6th
Room block held until Friday January 12, 2018
Room Rate is the Prevailing GSA rate estimated at \$130 per night
Rate honored 3 days before and after event based on availability
Cancellation Policy - 48 hours before check-in
Parking is \$15.00 per night



GETTING THERE:

The San Antonio Airport is only 8.5 miles from the downtown business district -- about a 15-minute drive -- which is unusual for a major metropolitan area. This means that once you land at the airport, you're just minutes from downtown and major resorts. And once you're here, getting around is a snap thanks to our wide selection of transportation options, including the VIVA by VIA service, River Taxi, Cabs, Uber, and Lyft. If you have questions about how to get around, check the Visitor Center for information.

Guide to getting around San Antonio!

NEWSLETTER ARTICLE SPECIFICATIONS

Articles subject to editing. Submit an article by e-mail.
Include author's name, title of article, captions for photos.
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Department for Natural Resources
300 Sower Blvd.
Frankfort, KY 40601

For more information call **Bob Scott** or **Ben Enzweiler** at 502-564-2141.