



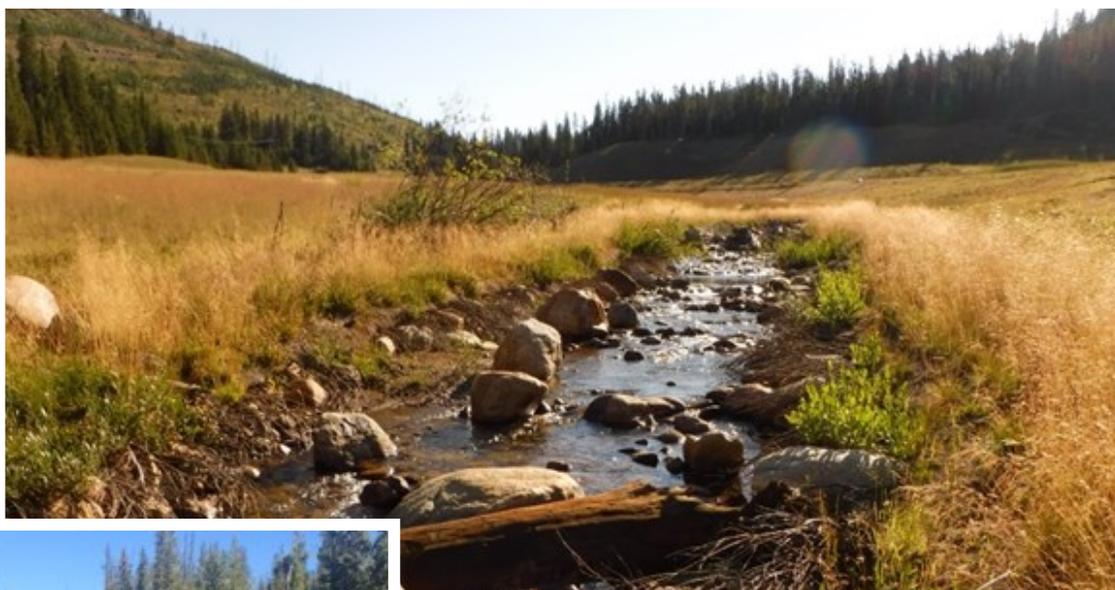
# NASLR

**NATIONAL ASSOCIATION OF  
STATE LAND RECLAMATIONISTS**

We are a group that is Moving Forward.

**FALL 2016**

<http://www.naslr.org>



## 2016 Conference Issue

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**Montana Governor Steve Bullock opens the 2016 Conference.**



**Joe Pizarchik, OSMRE Director speaks at the Plenary Session.**

## 2016 Conference

*National Association of State Land Reclamationists and National Association of Abandoned Mine Land Programs for the first time held a joint conference this year.*

Hosting the 38<sup>th</sup> NAAMLPLP conference, in conjunction with the NASLR conference in Bozeman in September was no easy feat!

With planning taking place over the past two years, in conjunction with their regular jobs of remediating abandoned mine lands across Montana, the team stepped up to put on the best NAAMLPLP conference ever. The 2016 conference set an attendance record with 385

total registrations. Conference attendees were very enthusiastic about the conference and how wonderful the surroundings were.

The Wyoming AML program was a co-host, and kicked off the pre-conference with a tour to Wyoming, including stops at the Pryor Mountain Wild Mustang Center, Bighorn Canyon National Recreation Area, the Bighorn Medicine Wheel, the Heart Mountain Interpretive Center WWII Japanese Internment Camp, the Buffalo Bill Center of the American West, and a Yellowstone National Park tour. It was a great way for Wyoming to highlight their state to out-of-town guests and to kick the conference off.

The regular conference began Sunday September 25 with an evening vendor reception. This gave people the chance to mingle with each other and the 29 vendors in attendance. Environmental consultants, companies with new and innovative technologies and many others had great displays facilitating the exchange of ideas and technology.

Monday morning the day started with the Plenary Session where conference attendees were greeted by Dr. Waded Cruzado, President of Montana State University. Other speakers included NAAMLPLP President Chuck Williams, NASLR President Sam Faith, Vice-Chairman of the Crow Tribe Dana Wilson, Office of Surface Mining Reclamation and Enforcement Director Joseph Pizarchick, and Assistant Secretary of the Interior Janice Schneider. Video comments were given by all three members of the Montana Congressional Delegation.



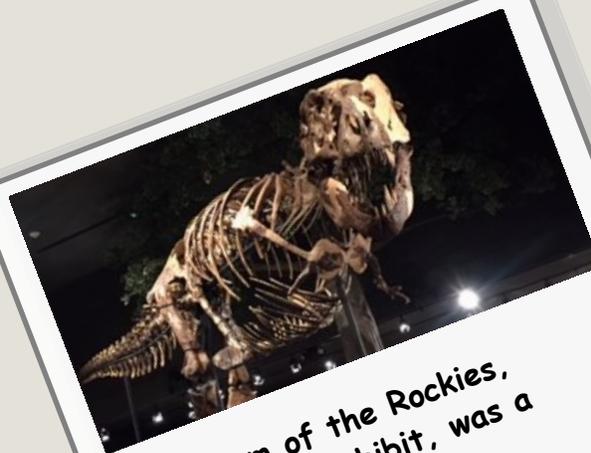
*Dana Wilson, Vice Chairman of the Crow Tribe speaking to the group.*

Throughout the next two days there were many great technical sessions on a wide variety of environmental issues related to abandoned mines and reclamation. There were 64 technical presentations with excellent questions and discussions, and the feedback on the quality of talks was very positive. Topics of the 30-minute presentations ranged from subsidence and geophysical investigation methods, endangered species, mining cultural history, water treatment, and hydrologic basin and stream restoration.

Monday night brought the banquet, which featured a keynote from Governor Bullock and a lovely dinner. There was much celebration of the great work that AML programs do across the county with awards given. The culmination was the national awards taken home by the Montana AML program for the Sand Coulee Water System Restoration project (see video here: <https://youtu.be/fZKZ9Z6O1ys>), and the McLaren Tailings Reclamation project in Cooke City. Congratulations to Tom Henderson, the project manager on both, and the great team of people that worked on these projects to ensure their success.

The highlight of the week for most people was the field trips. The tours included two buses to Butte, two buses through Yellowstone to Cooke City and the AML McLaren Tailings project, one bus and two vans to Yellowstone and Old Faithful, and one bus to Virginia City and a tour of the Garnet USA mine in Alder. People raved about how much they loved the tours. The weather was excellent, and the tours provided an opportunity to showcase the lovely and fascinating state of Montana.

After people returned from the tours, the day wrapped up with a wonderful evening at Museum of the Rockies. Tours of the museum were taken, showings in the planetarium were enjoyed, and everyone filled up on great food and drink.



*Museum of the Rockies, Dinosaurs exhibit, was a crowd favorite.*

The final day brought several more technical sessions and then NAAMLPR and NASLR business meetings. After being encouraged to “come early, stay late,” many people did just that and left for their own tours of Montana. The conference was a huge success and the host next year, Pennsylvania, went home knowing they have a monumental task in front of them!



NASLR 2106 Conference Booth



Bozeman Montana a great place to visit.



Technical talks underway.

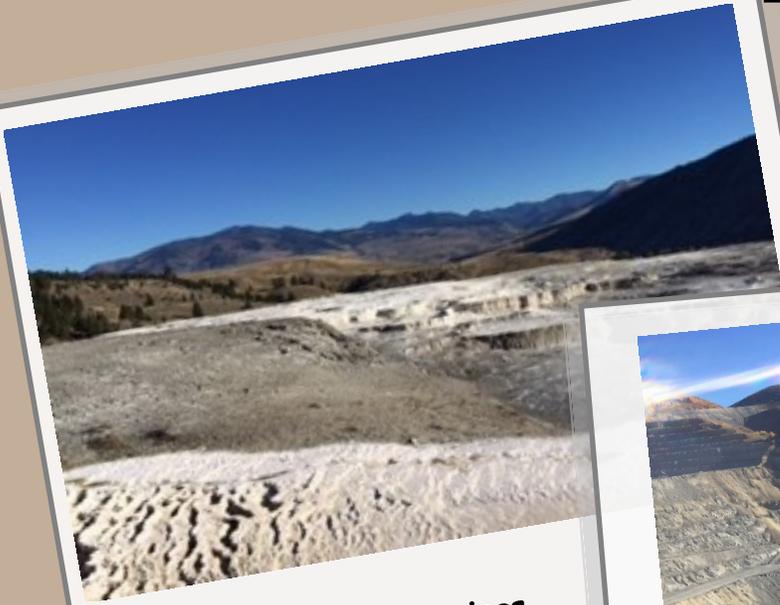
Thanks to all of the volunteers from Montana DEQ that made this conference possible. Without you, the conference would not have enjoyed the success it did.

**Special thanks to the following people:**  
**Tom Henderson organized the technical sessions. He screened the 75 papers submitted and organized them into the 20 sessions. Scott Graham planned the tours, organized meals, chase vehicles, and informational stops. Kim Wells managed the IT component making sure the nearly two dozen computers needed for the**

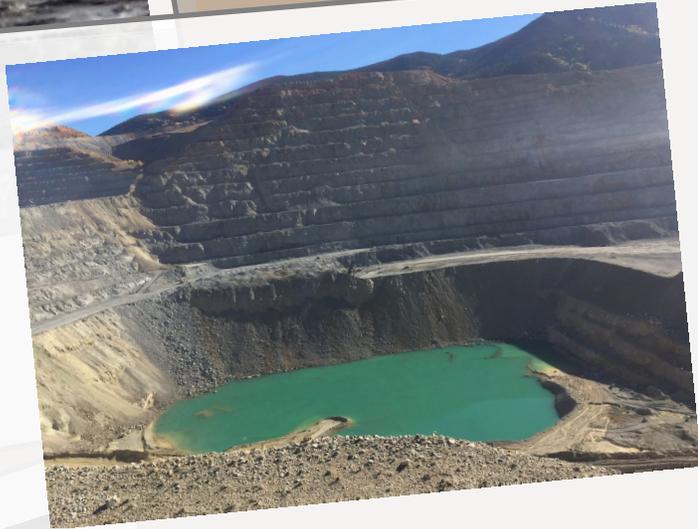
**conference were loaded with the correct applications and technical presentations.**

**Sharlene Snoddy coordinated all of the conference events, managed communications with the hotels, coordinated banquet meals and hospitality rooms and receptions. Joann Wiggins spent hours designing fliers, event tickets, and helping manage registrations. Bill Snoddy and Autumn Coleman led the extensive planning, organization, and execution of the event.**

# 2016 CONFERENCE TOUR PHOTOS



**Mammoth Hot springs**



**Berkley Pit**



**Copper Mine Tour**



**Bison Grazing in Yellowstone Park**

**Cover Photos: McLaren Tailings reclamation site, lunch at Clarks Fork and Elk standing on the streets in Gardiner MT on the way to Yellowstone Park.**

Visit the [NASLR website](#) for more conference photos.

# 2016-2017 NASLR OFFICERS



**NASLR welcomes new officers President – Janet Yates (VA DMME) Vice President – Ed Coleman (MT DEQ) and Secretary Treasurer – Jeff Meitrott (PA DEQ) .**



**Outgoing President Sam Faith (PA DEQ) was honored by incoming President Janet Yates (VA DMME) and the entire NASLR group for his dedication to NASLR. Thank you Sam!**

# From The President

## “Something Special”

*By Janet Yates*

*Virginia Department of Mines, Minerals and Energy*

I remember my first NASLR Conference in the fall of 2014 in Newburgh, New York as a wonderfully pleasant experience. I can honestly say it was one of the best conferences I had ever attended as far as the quality of both the technical presentations and the field trips. I was very impressed overall and the most important thing that happened was I met so many nice folks involved in reclamation. At the time they were just acquaintances and we had one thing in common, we both worked at the same type of job. As we all went to the conference the next fall these new people became some really good friends of mine. We talked with each other throughout the year, not just as conference time rolled around. At the conference in Bozeman, someone was talking about what the future of NASLR was going to look like and what direction it was heading in... “What’s its selling point going to be?” Well, to me NASLR is already something special: it’s a small group of reclamationists, but that’s its allure. We don’t have the large numbers of some other organizations but when you attend a huge conference how many of those people do you truly get to know amid the throngs of people coming and going? NASLR Conferences are like a homecoming and I look forward to catching up with folks, it’s not only work; it’s good to continue

your education while also having that comradery at the same time. It would be bad of me to say as the incoming President that I don’t want NASLR to grow in its membership, so don’t let me give you that impression. I would love nothing more to see a few more states become members this coming year and that is one of the goals with which our PRE committee is tasked. However, I am saying there is a distinct advantage to our group staying on the smaller side, and I myself prefer it that way. I like that I know everyone by name and I consider them a true friend. That to me is NASLR’s selling point, it’s authentic and we are committed to sharing reclamation practices between each other. I don’t think you can measure an organization’s importance or impact solely by its membership numbers.

It felt a little strange that the incoming president was not from Pennsylvania, as the last two years we were lucky to have been led by two fine gentlemen from that state (Mike Smith and Sam Faith PA DEP). I thought about how difficult it would be to follow up such an act, but as I began to look through a list of the previous presidents on our website I realized there have been 6 past presidents from Virginia! I am honored to be added to that group and I will do my very best to promote NASLR and leave it better than I found it. I would like to recognize the effort that has gone into our newsletter and recent website upgrade by Lesa Baker (VA DMME) and Jeff Meitrott (PA DEP). I’d also like to extend a huge thank you to Autumn and Ed Coleman (MT DEQ) for allowing us to have a joint conference with NAAMLPA this September in Bozeman, Montana and all the hard work they put into making it come together so beautifully.

I’m happy to announce that we will be having the conference next fall in lovely Williamsport, Pennsylvania and I can’t wait to see everyone again! Save the Date for next October!!

# 2016 AWARD WINNERS

## Scholarship:

**Florence Miller**  
Land Resources and Environmental Sciences  
Montana State University

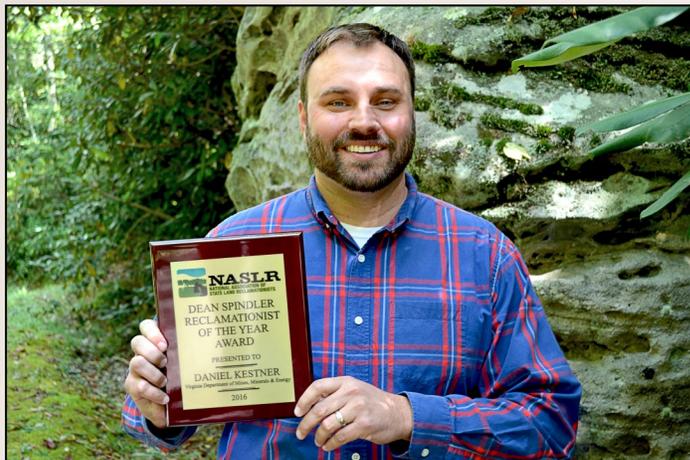


The National Association of State Land Reclamationists awards a \$1,500 scholarship every year to a full time student at an accredited college or university whose focus is in the area of mined land reclamation or a closely related field. Applicants are evaluated on the basis of grades, quality and relevance of course work or research, a proposed special project (if applicable), information obtained from references, and other related considerations.

The 2016 NASLR scholarship is being awarded to Florence Miller who has just started her graduate work at Montana State University to pursue a M.S. Degree in Land Resources and Environmental Sciences. Florence conducted her undergraduate studies at California Polytechnic State University in San Luis Obispo and graduated with honors earning a B.S. Degree in Soil Science with a focus in Land Resources. Florence has identified that for her thesis she will be examining the potential sources of uranium that currently contaminate drinking water on the Crow Reservation in Montana. Her career objectives are to work in land restoration, including mined land reclamation, and examine and mitigate the impacts that soil and water contamination have on environmental and human health.

## The Dean Spindler Reclamationist of the Year:

**Daniel Kestner**  
VA Dept. of Mines, Minerals & Energy



The Dean Spindler Reclamationist of the Year award was established to recognize exemplary work done by state regulatory professionals in the field of mined land reclamation. The nominees are evaluated on (1) their performance, dedication, attitude, and commitment to timely and quality reclamation; (2) their effectiveness in implementing their state's program; and (3) how and to what extent the nominee performs activities that exceed the responsibilities of his/her job requirements.

The 2016 Dean Spindler Reclamationist of the Year award winner is Daniel Kestner with the Virginia Department of Mines, Minerals, and Energy (DMME). Daniel's nomination identified him as the consummate professional in GIS and mapping applications related to mine land reclamation with skills in technology that are widely recognized among state and federal agencies and the mining industry. Additionally, during the current year, Daniel effectively worked as the facilitator with the six divisions of DMME to come up with a department level strategic and operational plan that maps the goals, strategies, and objectives of DMME. Lastly, Daniel is not only an innovator of technology, but goes the extra mile and volunteers to assist with event planning, addressing agency issues, and responding to pressing Congressional inquiries.

The Coal and Non-Coal Mined Land Reclamation Award was established to recognize companies and individuals who achieve outstanding and exemplary achievements in the reclamation of mined land and promote the awareness and exchange of information for quality reclamation and environmental stewardship. The award nominees are evaluated on compliance with applicable regulations, contemporaneous reclamation, implementation of drainage design and maintenance that results in an environmental benefit, establishment of reclamation that allows for the designated post-mining land use, and innovative practices in reclamation.

**Mined Land Reclamation Award - Coal Reclamation**

**Paramont Coal Company Virginia, LLC  
Smith Gap Surface Mine - Virginia**



Paramont Coal Company's Smith Gap Surface Coal Mine was nominated for the Mined Land Reclamation Award by Richard Davis of the Virginia Department of Mines, Minerals and Energy, Division of Mined Land Reclamation. Paramont has a reputation for achieving excellent reclamation, and this operation is no exception. This nomination demonstrates the company's continued commitment to conducting surface mining and reclamation operations in a safe and environmentally sound manner. This mining

operation also shows Paramont's dedication to the reclamation of abandoned mine lands through responsible re-mining techniques.

The Smith Gap Surface Mine consists of multiple surface coal mining and reclamation operations which include surface contour, area mining, and highwall mining. The company accomplished exemplary surface contour mining and reclamation on multiple coal seams in very steep and rugged terrain by effectively utilizing steep slope mining techniques. In order to maximize recovery of the resource, a highwall miner was incorporated into the mining plan. This site is an excellent example of the benefits of re-mining as this mining permit represented the third time mining had occurred on two of three coal seams. The reclamation operations successfully eliminated and reclaimed over 10,000 feet of previously existing highwalls that were created by the pre-SMCRA mining or were not fully eliminated by the operations occurring in the 1990's. Final grading and revegetation of the mined areas has complemented and enhanced the existing contours for a natural appearance that over time will ultimately blend with the original terrain. Additionally, three stream-channel reconstructions have been successfully implemented by Paramont at this mine.



**Mined Land Reclamation Award – Non-Coal Reclamation**

**Amerikohl Aggregates Inc.**

**McMillen Quarry - Pennsylvania**



contemporaneous reclamation is to keep the active footprint of the operation to a minimal configuration that will allow them to mine efficiently, meet production goals, minimize their presence in the neighborhood, and, to the extent possible, make that presence as compatible as possible with the ongoing life of the surrounding community. This spring the operator built an outbound truck wheel washer to address a recurring problem of trucks tracking fine limestone dust from the site onto local streets where it would be dispersed into the atmosphere and eventually settle out on houses and cars. Those wheel washing efforts have proven successful in minimizing off-site impacts.

**Amerikohl Aggregates Inc., McMillen Limestone Quarry was nominated for the Mined Land Reclamation Award by William Edmiston of the Pennsylvania Department of Environmental Protection, Knox District Mining Office. The Vanport Limestone is the principal mineral being mined but some coal is also encountered and extracted incidental to the limestone recovery. The limestone is about 20' thick and is mined under cover ranging from 20' to 120'. The mining is accomplished using a block strip method which allows reclamation to be performed on a contemporaneous basis as the mining operation advances through the reserve.**

**One of the operator's goals from the initiation of this operation has been to accomplish as contemporaneous reclamation as practicable. This has been achieved and exemplified by the fact that hay crops were harvested the last 2 years on areas reclaimed over the previous 3 years. Reclamation, including planting, began in 2013 and has progressed every year since. Secondary to the goal of maintaining**

**2017 Conference will be held at the Williamsport, PA  
Holiday Inn on October 1-4, 2017.**



**An Exciting information packed conference is planned to be held in Williamsport, PA. Next year's host is the Pennsylvania Department of Environmental Protection.**

**More information on conference speakers, tours and continuing education opportunities will be forth coming. Be sure to check the [NASLR website](#) and [Facebook](#) for up-to-date information.**

# McLaren Reclamation a Huge Success

Gold was discovered in 1869 by fur trappers panning streams on the Crow Indian Reservation near the future location of Yellowstone National Park. The New World Mining District quickly developed and included mining, milling, and smelting operations around the new mining camp of Cooke City, Montana.

The McLaren mill site processed ore from 1933 until 1953, generating 60,000 troy ounces of gold and 2,000 short tons of copper. The mill was built along the banks of Soda Butte Creek near Cooke City, and the mill tailings were deposited in the valley floor covering approximately 10 acres. In 1950 tailings were washed into Yellowstone during a flooding event.

Over the following decades, the tailings impoundment was identified as a threat to the park, and an ongoing source of contamination to Soda Butte Creek. Following the 1988 Yellowstone fires, the McLaren Tailings site was designated an Emergency Response Action Site by the U.S. Environmental Protection Agency, resulting in work to divert water and stabilize the dam.



*Soda Butte Creek before the cleanup*

Site characterization work was performed by the Montana Abandoned Mine Lands program in the 1990s to prioritize the site. The evaluation of reclamation alternatives was completed in 2003. The preferred alternative was the complete removal of the impoundment from the Soda Butte Creek channel and floodplain.

The mine reclamation project began in 2010 and was challenging for many reasons, including short summer work seasons at 7600 feet elevation, wet tailings, and contaminated shallow groundwater in the impoundment. Abundant wildlife present in the area includes moose, bison, and grizzly bears. The risks associated with grizzly bears were evidenced by attacks in 2010 which occurred in the Soda Butte Creek campground bordering the project site. Additionally, no commercial hauling is permitted through

**Yellowstone National Park, so all construction equipment, materials, and amendments were delivered to the site across Dead Indian Pass, an 8,000-foot mountain pass in Wyoming.**



***Tailings impoundment before dewatering***

**Removal of the impoundment required excavation of tailings to depths of 35 feet below ground surface and 20 feet below the water table in the impoundment.**

**Dewatering the tailings was achieved by capturing groundwater at the perimeter of the tailings impoundment and pumping groundwater below the impoundment. Over 110 million gallons of contaminated water were pumped from the aquifer below the impoundment and treated with lime, and 320 million gallons of water were pumped from the perimeter wells. The treated water was mixed with the perimeter water before it was discharged to Soda Butte Creek, meeting Montana water quality standards. The dewatering system reduced water levels**

**in the impoundment over 25 feet which facilitated the excavation of the entire impoundment.**



***Tailings impoundment during dewatering with pumping well near center of photo***

**The tailings impoundment consisted of approximately 240,000 cubic yards of wet, fine clay and silt materials. Construction equipment could not operate on the tailings without becoming immobilized. Quicklime was mixed with tailings to allow construction equipment to operate on the impoundment and compact the stabilized tailings in the repository. In-situ mixing of quicklime with the tailings was achieved using a pressurized mixing head. The tailings were stabilized and excavated in 10-foot lifts. Metered lime delivery was provided by system software which tracked the lime feed rate and monitored the weight of the lime supply tanks.**



*60-mil HDPE liner installed over constructed repository*

Approximately 1,800 lineal feet of Soda Butte Creek and Miller Creek channels were reconstructed in their approximate pre-mining locations following the removal of the tailings impoundment in 2013. The project was covered with compost-amended soil and seeded in 2014. Willow cuttings were planted the channels and Douglas fir and aspen were planted across the project.



*Reconstructed Soda Butte Creek channel in 2014*

Improvements to water quality in Soda Butte Creek were documented in a basin-wide sampling program conducted by the National Park Service in 2015 and 2016. The improved water quality due to completion of the reclamation project facilitated the Soda Butte Creek Yellowstone Cutthroat Trout Conservation Project. This is a joint project involving Montana Fish, Wildlife and Parks, Wyoming Game and Fish, the Shoshone and Gallatin/

**Custer National Forests, and Yellowstone National Park to remove non-native species and provide a secure area for establishing a population of native Yellowstone cutthroat trout in Soda Butte Creek. A stronghold for Yellowstone Cutthroat Trout is critical, as recent investigations indicate increases in non-native species in the nearby Lamar Valley.**



*Reconstructed Soda Butte Creek channel in 2016*

**The reclaimed area now provides an ecosystem to enhance the fishery in Soda Butte Creek and recreational opportunities in the area not available since 1934. Much of the economy of the local community is based on the fishing opportunities provided by Soda Butte Creek. The project received a National Recognition Award in the American Council of Engineering Companies in 2015 and a Hard Rock Abandoned Mine Lands Reclamation Award from NAAML in 2016.**

*For more information on the McLaren Tailings Reclamation project, contact Tom Henderson with the Montana DEQ AML program at 406-444-6492 or [thenderson@mt.gov](mailto:thenderson@mt.gov).*

# Notes From the Field Revisiting the Regulations

*By Dean Spindler*

*Illinois Office of Mines & Minerals*

As our agency moves into its third generation of our application form and also is in the process of training a number of new staff, we are going through a comprehensive review of our regulations. As those familiar with the SMCRA regulations and their length, it is easy to see how regulations are forgotten and requirements are overlooked. I periodically run across a regulation that I don't remember exists.

**The first part of this is to ensure every question has a referenced regulation.**

Part of the process of writing a new application is to revisit the existing application questions from several points of view.

**The second task is to reverse the process of this by having someone go through the existing application regulations to ensure that there is a related question in the application.**

Those forgotten or obscure application regulations may not have a question at all in the application. It would be unfortunate to have a permit decision overturned because a required piece of information was missing.

**The third is creating or rewriting questions that that we are constantly referencing in modification letters asking for corrections or**

**clarification to a response that does not hit the mark.**

**The fourth task is to have field and technical staff identify challenging field issues and decisions which could be expedited if there was a good narrative in the application of the issued permit describing how this operational issue would be handled if encountered.**

The following are some field conditions that have occurred in recent years that were unaddressed in applications.

Pipelines are situation where sometimes the unexpected occurs, a break or a clog where discharge occurs. In this case a good narrative or emergency plan is useful to have included in the permit.

Another elusive area in permitting and enforcement is dust control under SMCRA. It seems that we are constantly revisiting the issue as to what dust is covered under SMCRA and what isn't. We have found it useful to have the applicant describe what efforts they will go to proactively reduce dust nuisances as they invariably occur when residents are nearby.



# NASLR

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We are a group that is Moving Forward.

**The 45 Annual NASLR Conference will be held October 1-4, 2017 in  
Williamsport PA.**

**If you are not already a member or know someone interested in becoming involved with a group of reclamation professionals promoting excellence in reclamation please contact us or forward this newsletter to them. You are cordially invited to join NASLR, a group of member state reclamation agencies throughout the United States, as well as government reclamation professionals and industry associates that seek to develop resources and strive to restore mined lands to productive uses.**

**The four categories of membership are *State, Individual, Associate and Corporate Sponsor.***

**To join, see conference information or request additional information, please visit our website at: [www.naslr.org](http://www.naslr.org)**

## **NASLR NEWSLETTER**

*Fall 2016*

[naslr.org](http://naslr.org)

To submit material for future newsletters please contact Jeff Meitrott [jmeitrott@pa.gov](mailto:jmeitrott@pa.gov)

Please use a [NASLR Newsletter Submission Form](#)

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