NASLR
NATIONAL ASSOCIATION OF STATE LAND RECLAMATIONISTS

Fall 2017

http://www.naslr.org

2017 CONFERENCE

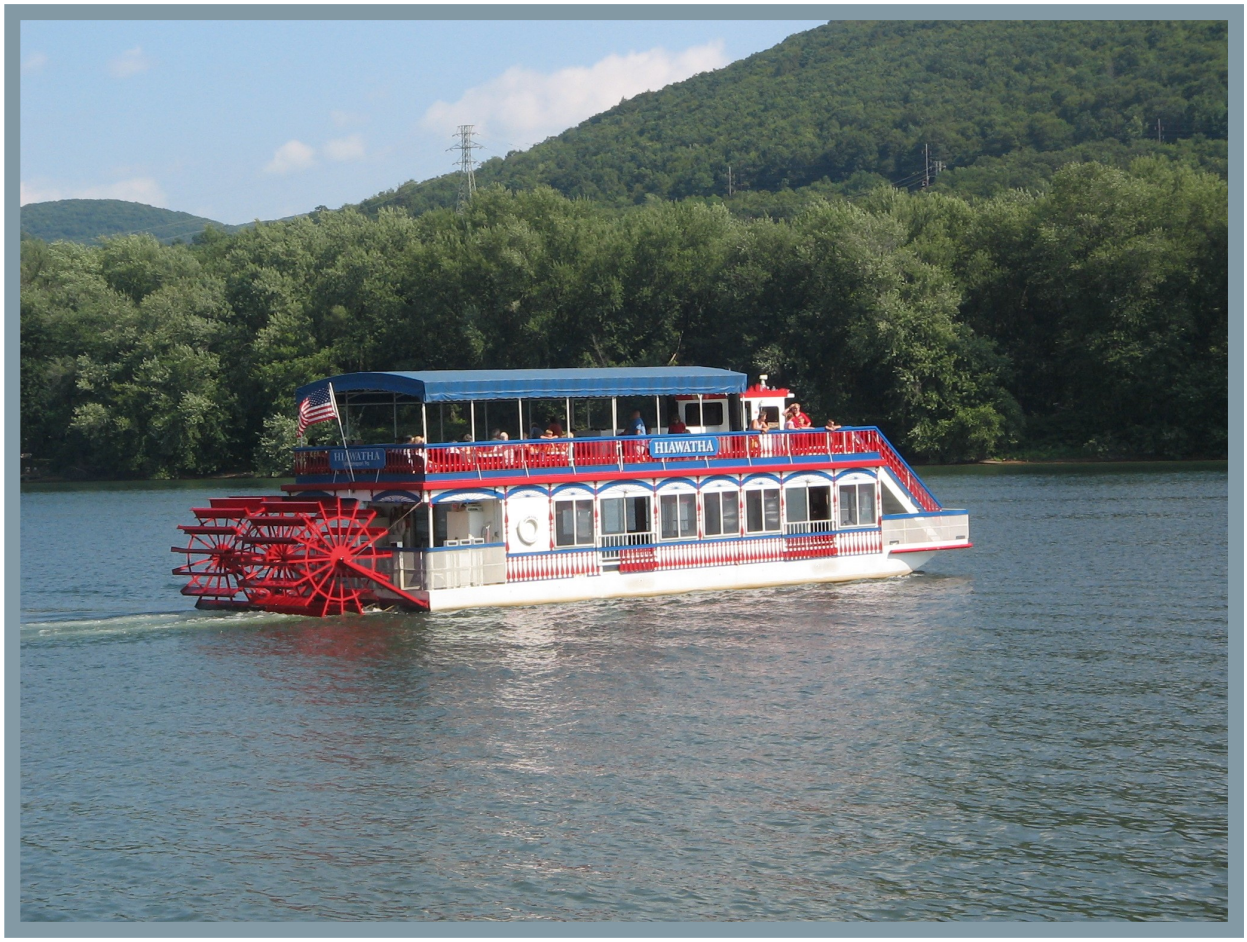
The 45 Annual NASLR Conference will be held October 1-4, 2017 in Williamsport PA.

FEATURED ARTICLES

Photo of: Pennsylvania Grand Canyon

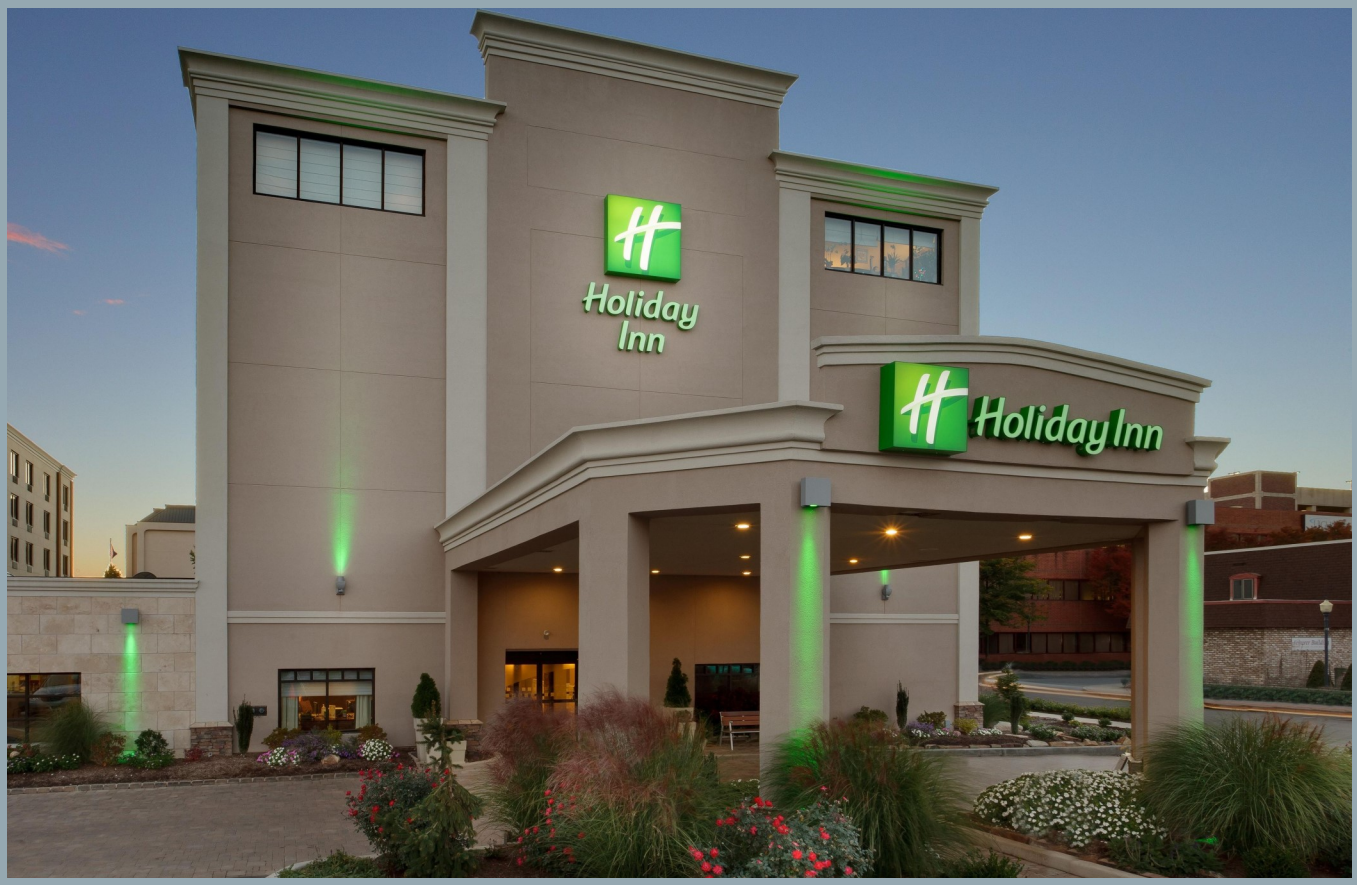
Have you registered for the 2017 NASLR conference in Williamsport, PA?

The NASLR conference will include a dinner cruise on the Hiawatha paddleboat. The annual field trip will visit the most northerly bituminous coal surface mine in the eastern US. This mine was a recent recipient of the NASLR coal reclamation award and has incorporated many wildlife-friendly features in its reclamation. From there, we will visit an acid mine drainage treatment plant that generates electricity from the treated discharge and stop for Lunch at the Pennsylvania Grand Canyon.



Have you booked your room at the Holiday Inn?

The room rate of $91 is only available until August 31, 2017



The Holiday Inn in downtown Williamsport is the conference headquarters and has set aside a block of rooms at both the Holiday Inn and connecting Holiday Inn Express for the conference. Be sure to mention that you are attending the NASLR conference to get the discounted room rate of $91. The Williamsport Airport provides commercial air service on American Airlines. Other nearby airports are at Harrisburg, State College, and Elmira NY.

Notes From the Field

Regulating Field Conditions

Reality vs the Textbook

By Dean Spindler

Most of us, be it inspectors, technical staff or administrators, began our careers in reclamation shortly after college. If we were lucky, we may have had a limited exposure to mining and reclamation in the field while in school. In the last few years, I have spent time interviewing job applicants and doing some field training with our newer staff. On many occasions, I observed how well the new person reacts to hypothetical field situations, whether what they learned in school may not have dealt with the issue, or the observations made in the field do not match the textbook image. In my world, the ideal candidate or new employee has "farm boy or farm girl" common sense already, but this can also be a learned skill if a person is open minded enough. I am sure there are many other terms for this, but essentially it is being "pragmatic."

When we got out of college, many of us thought we knew more than we really did and were ready to solve some the world's problems. My experiences where a textbook education didn't teach you what to do in the real world are no exception. The best example I can think of is when I was first hired in the 1970's prior to SMCRA. My job was to develop a mine soil evaluation program to regulate the brand new cropland regulation in my state. Having both a geology and soils education, my textbook training was that, when it came to a productive soil for crops, "all" rocks were bad and could not be allowed. After making rash decisions, I was chastised by my long experienced supervisor and instructed to step back and re-evaluate real world conditions that a textbook and classroom never envisioned. Field investigations showed that some shale was actually siltstone and that some of those would disintegrate within a couple of years to form the ideal soil texture, a silt loam. A learning experience, indeed!

The following are field examples in other disciplines:

1. Intermittent vs. ephemeral streams: Field conditions where the stream is gaining and losing (water table is below and above the stream bottom) within a few hundred yards. By textbook definition, this stream changes classifications within this distance. This was a tough one when testifying to a hearing officer why the textbook definition didn't fit the real world.

2. Wildlife reclamation areas: Field conditions where native and/or introduced species invade and are intermixed with what was planted. This raises questions what to count at the time of bond release evaluation.

3. Overburden: Field conditions where the overburden, which is highly variable over the distance of a pit length, is not what is typically taught in geology class. This may be an overburden handling issue if one of the variable strata is considered acid forming.

All of the above and many other similar examples demonstrate that the absolutes of the academic and legal (regulatory) world have trouble recognizing and dealing with real world conditions. Field and technical staff have to take a pragmatic approach to solving these issues. It also requires administrators, particularly with oversight agencies, to have these same pragmatic approaches to problem solving.

Reclamation of Mined Lands in Ohio Using Coal Combustion Residues

On May 4th, the Ohio Mineland Partnership convened their Spring 2017 meeting at American Electric Power (AEP)'s Conesville Power Plant. The meeting included two tours. The first tour was held at the power plant focusing on the coal-fired power generation process and the second toured the nearby Five Points Abandoned Mined Land (AML) reclamation project. This reclamation project utilized Coal Combustion Residues (CCR), including flue gas desulfurization (FGD) gypsum, stabilized FGD material, fly ash, and bottom ash, generated at the power plant as a confined bulk fill to reclaim the previously strip mined areas. These legacy areas (Figure 1) were mined by Peabody Coal Co.'s "Coal Chief" shovel in the 1960's.

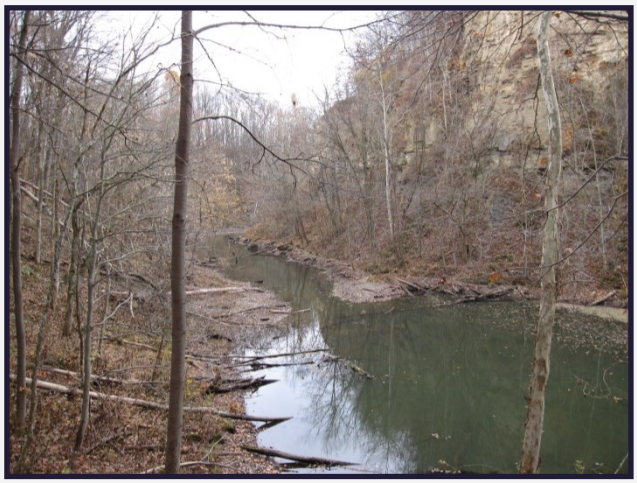


Figure 1- Legacy highwall/pit complex at the Five Points site before reclamation.

This project is the result of a long journey that began in 2008, when the Ohio Coal Development Office (OCDO) awarded the Department of Civil, Environmental, & Geodetic Engineering at the Ohio State University (OSU) a one-year grant for a Phase I study titled FGD By-Product Utilization at Ohio Coal Mine Sites: Past, Present, and Future. The focus of the study was to increase the high-volume utilization of FGD material for reclamation at Ohio coal mine sites in a manner that is economically viable and beneficial to the environment, the public's health and safety, and the generating companies. Overall, the study found that stabilized FGD and FGD gypsum are favorable materials for reclamation because of its neutral or moderately alkaline pH that is compatible with natural soil ecologies. The material exhibits low leaching availability of mercury and other environmentally concerned constituents, relatively inexpensive transportation and earthwork unit costs, and reliable production by coal combustion power plants throughout eastern Ohio. The Ohio Department of Natural Resources-Division of Mineral Resources and Management (ODNR-DMRM) has in place a sound regulatory approach for reviewing and approving these beneficial uses that considers the technical and environmental factors associated with FGD's beneficial use at mine sites.

The Five Points site was one of three sites proposed for a Phase II demonstration project focusing on reclamation of unreclaimed highwall/pit areas where the criteria of economics, location, ownership, and environmental safety factors can best be applied with the highest ranking. The Five Points AML demonstration project was launched in 2009 with a strong collaboration between the ODNR-DMRM, AEP, and OSU.

The Beneficial Use Application (BUA) for this project was submitted by AEP to ODNR-DMRM in 2010 and approved in 2011. Construction of the project began in 2011, and placement of CCR material began in 2012 (Figure 2). The backfill was completed in 2016. Approximately 1.7 million tons of CCR materials were placed at the project site. Over 2,400 linear feet of unreclaimed highwall were eliminated and 22 acres of AML were reclaimed. The project incorporated the "Forestry Reclamation Approach" (FRA) (Figure 3) utilizing end dumped spoil material as a growth medium for tree seedlings and nurse grasses.

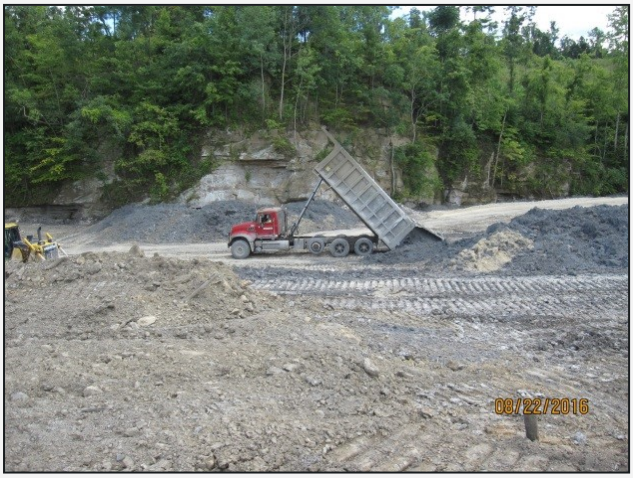


Figure 2- Placement of Coal Combustion Residues

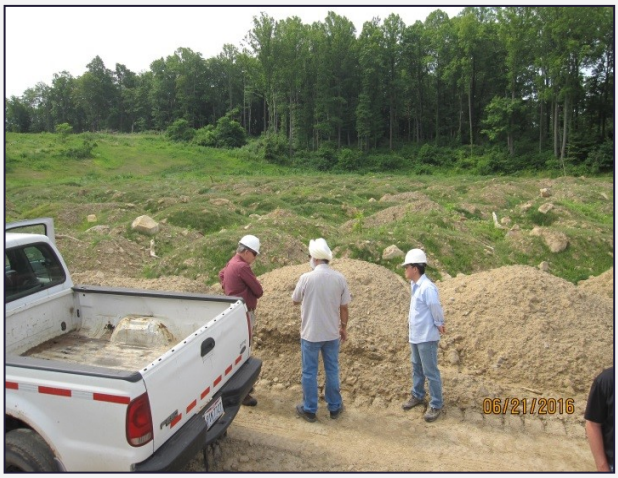


Figure 3 – FRA

In 2009, OSU began background surface and groundwater monitoring of nine wells and two surface water sites, which continued throughout construction. The observations on the water quality impacts were evaluated and documented in a peer-review article titled "*Short-term Influence of Coal Mine Reclamation using Coal Combustion Residues on Groundwater Quality*" published in *Science of the Total Environment* . It was concluded that reclamation activities, such as logging, grading, and dewatering, changed the hydrogeological conditions and resulted in the observed significant water quality changes. Despite the changes to the water quality, the impacts are insignificant and temporary. AEP will be continuing the water monitoring program for five years post project completion in accordance with their agreement with the ODNR-DMRM. The Five Points Phase III continuation AML project was approved by the ODNR-DMRM in 2015. This project borders the Five Points Phase I & II sites on the east and west sides. Approximately 5,000 linear feet of highwall will be eliminated and 50 acres of unreclaimed spoil and pits (AML) will be reclaimed with the successful completion of this site. For further information go to ccp.osu.edu or email ccp-osu@osu.edu.

National Association of State Land Reclamationists

JOIN NASLR FOR OUR UPCOMING CONFERENCE

OCT 1-4, 2017

WILLIAMSPORT, PENNSYLVANIA

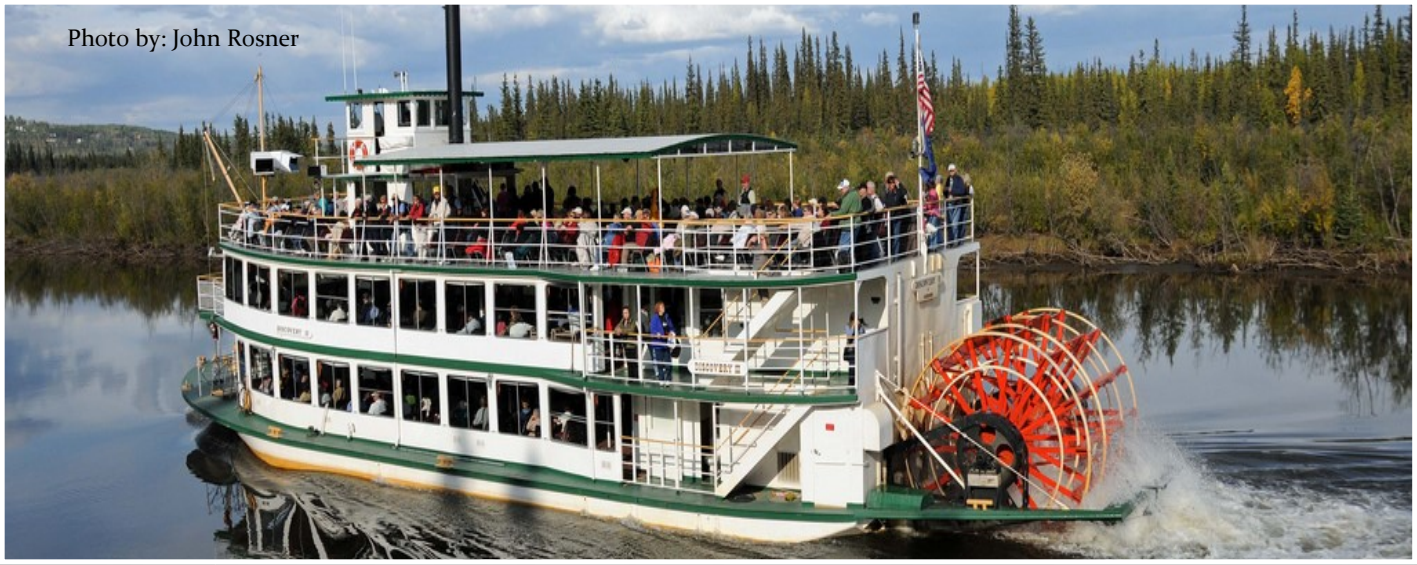


Photo by: John Rosner

Reservations should be made at the Holiday Inn- Williamsport under NASLR, please visit the NASLR website to Register or the form attached in this newsletter.

*Continuing education credits will be available.

NASLR
NATIONAL ASSOCIATION OF
STATE LAND RECLAMATIONISTS

45th Annual NASLR Conference Registration October 1 - October 4, 2017
The Holiday Inn, Williamsport, PA

Name:_____Name Tag (if different): _____

Title: _____

State / Organization / Dept.: _____

Address:_____City:_____State: ____ Zip Code:_____

Phone: _____ E-mail: _____

_____@ $250.00 NASLR Conference Registration

_____@ $125.00 Spouse / Guest Registration Name: _____

October 2 Banquet - Please indicate with a ✓your choice of an entrée for your banquet meal:

_____ Roast Beef _____ Roast Turkey _____ Three-Cheese Lasagna

October 3 Field Trip – Please indicate with a ✓your choice of a deli sandwich for your boxed lunch:

_____ Turkey _____ Ham _____ Tuna _____ Vegetarian

Sponsorship

_____$750.00 (Includes one conference registration, plus one exhibit set up)

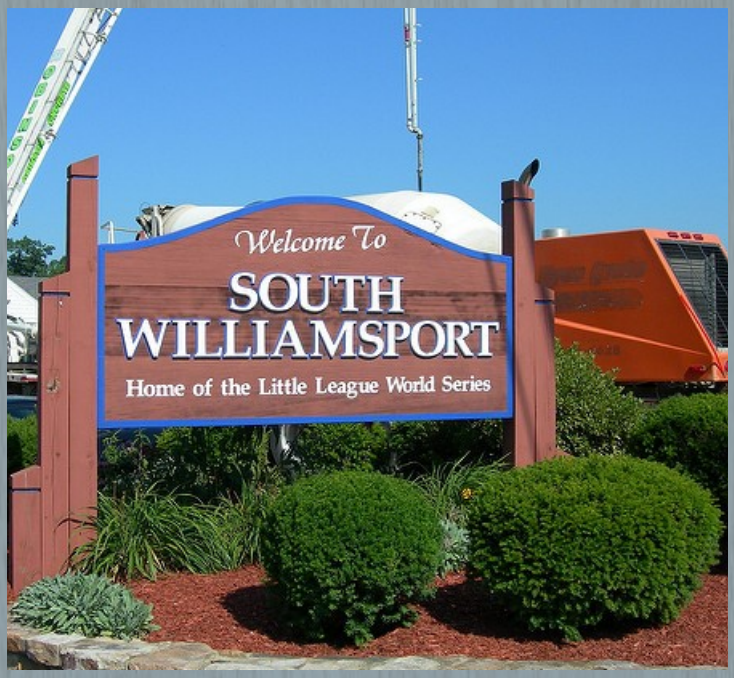
Total Fees $_____

Indicate with a ✓ if you want a certificate for professional development hours ____ Yes ____ No

Make checks payable to NASLR and mail to:

NASLR
ATTN: Jeffrey Meitrott
PA DEP
186 Enterprise Drive, Philipsburg, PA 16866

ON LINE REGISTRATION (CLICK HERE)



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

NASLR NEWLETTER
Fall 2017
naslr.org

To submit material for future newsletters please contact Jeff Meitrott jmeitrott@pa.gov.

Please use a **NASLR Newsletter Submission Form**

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