NASLR
NATIONAL ASSOCIATION OF STATE LAND RECLAMATIONISTS

http://www.naslr.org

Winter 2013

Outgoing President's Message

Thomas Gragg
New York State Dept. of Environmental Conservation

As this year comes to an end, I would like to mention a few things. First and foremost, thanks to my officers that presided during my term. The group made my tenure a walk in the park, especially the efforts of Vice President, and current President, Cindy Cross (WV).

Secondly, I would like to thank all the folks from Arkansas who hosted this year's conference. The sessions were quite interesting, and the field trip was something else, although no one found the big diamond.

Our Secretary/Treasurer, Ashley Rodgers (NC) resigned due to a job change (congratulations) after a brief time in the position. She did a wonderful job in switching our accounting from a paper world into a computerized one. Derek Giebell (WV) has stepped up to take over those duties. Mike Smith (PA) was elected Vice President, with Cliff Johnson (IL) and Gina Bell (AR) being elected to the Executive Committee.

I ask that you get involved in one way or another, whether it is just voting on an item that is sent out, submitting a reclamation job, or sending something newsworthy about mining in your state. The organization needs some work, and it all starts within. For you that were not able to attend this year's conference, an item of discussion was the possibility of joining up with another association. This more than likely will be put up for a vote in the near future. Any comments or concerns can be brought to the attention of any of the officers or executive committee.

Again, I would like to say what a privilege and honor it was to serve as your President.

Next year's conference is tentatively scheduled to be held in New York, location TBD. Check the website and watch the newsletter for updates. I hope to see you all there!

Incoming President's Message

Cindy Cross
West Virginia Dept. of Environmental Protection

They say that all good things must come to an end and it is with that in mind that I extend my most sincere appreciation to Tom Gragg (NY) for serving as NASLR's President in 2013. Tom was faced with some challenging decisions to make during his term and he did so with careful consideration to the preservation of NASLR and its platform. I am looking forward to his continued participation and enthusiasm in 2014!

On the same note, I would like to thank all members of the 2013 Executive Committee. As some are aware, Ashley Rodgers (NC) was elected as Secretary/Treasurer at the 2012 conference

held in Glade Springs, WV. Ashley met the challenge of that role head on and was able to accomplish a great deal in a short period of time. To her good fortune and NASLR's misfortune, Ashley was offered another position within the State of North Carolina that took her out of the mining and reclamation division, and she was unable to continue as NASLR's Secretary/Treasurer. We at NASLR certainly appreciate everything she accomplished during her time as an officer and we wish her all the best in her new career! I would also like to thank the outgoing members of the 2013 Executive Committee: Mike Kromer (WV), Bruce Ragon (TN) and Ed Haigler (SC). Thank you, gentlemen, for your service to the organization.

With that said, please join me in welcoming the new Officers and Executive Committee for 2014: Vice President – Michael Smith (PA), Secretary/Treasurer – Derek Giebell (WV) and Executive Committee members Tom Gragg (NY), Cliff Johnson (IL), and Gina Bell (AR). I look forward to working with this geographically diverse group and expect good things to happen in the upcoming year!

NASLR would like to extend appreciation to the staff at the Arkansas Department of Environmental Quality for hosting the 2013 conference at The Embassy Suites in Hot Springs, AR. Although extenuating circumstances prevented me from attending this year, it is my understanding that the conference was informative and although no millionaires were made at Crater of Diamonds State Park, a good time was had by all!

I recently read the statement: "Sometimes you have to take a big fall before you know where you stand." I can think of no better statement than that to sum up the impact the current economy has had on all aspects of the mining industry and long term reclamation. State regulatory agencies in conjunction with industry are facing such daunting budget constraints that everyone from the top of the totem pole all the way to the bottom is stretching every dollar to the max. NASLR is also feeling this trickle-down effect: conference attendance was down this year and membership has decreased while organizational expenses such as conference planning have grown.

The 2012-2013 Officers and Executive Committee focused on these issues last year and began laying groundwork and options for NASLR's future. We determined that one of the main issues that NASLR faces is that there are far too many people who have never heard of the organization or its purpose. To address that issue we decided to reinstate the Public Relations Committee, now chaired by Derek Giebell. The current focus of this committee is to get the newsletter up and running again and to generate more awareness of NASLR via the newsletter, conference and other events as feasible to the organization. As things progress and fall into place with the newsletter, the long-term goal of the committee will be to insure that NASLR is a common name in the reclamation industry by insuring NASLR's presence at reclamation-related functions and events through attendance, advertising and other media as viable. Another project that was undertaken over 2013 was updating the NASLR contacts database. This has been a huge project that we will continue to build on, improve and pass on to future NASLR administrations.

While the preceding tasks are already in development or being implemented, what we would like to ask of anyone reading this newsletter is to let us know what your expectations are of NASLR as an organization. How can we improve? What would you like to see in the newsletter? What topics would you like to see at the next conference? Please feel free to email me at cindy.m.cross@wv.gov or call me at (304) 457-3219 with ideas, suggestions or thoughts on what you would like to see NASLR offer or change. We want everyone's help in taking a new direction and building a better future for the organization!

Speaking of the future, watch your email and the NASLR website www.naslr.org for details on the 42nd Annual Conference to be held in New York State! Tom Gragg and his crew are busy planning what already promises to be a diverse, informative and entertaining event! We look forward to seeing you there!

In conclusion, I want to thank each and every one of you for the role you play in mining and reclamation. It takes all of us working together – industry, consultants, contractors, regulatory personnel and others – to achieve preservation of our lands and waters through outstanding reclamation practices. Never doubt for one moment that what we do is important and that future generations are counting on us to leave behind a legacy of good land stewardship. I thank you all for your continued support and interest in NASLR and look forward to serving you and the organization as president in 2014!

Reclamation of the Hanson Prescott site was a field trip stop. Proposed post-mining uses for this land varied from a public mud bogging area to a water park.

41st Annual NASLR Conference Highlights

Everyone at conference in Hot Springs, AR, had a great time learning about topics presented by various people from multiple states, visiting several interesting reclamation sites in Arkansas, and enjoying the local culture. Annual awards were presented for the admirable work individuals and companies have put in toward bettering our industry and reclamation. As mentioned previously in the Presidents' messages, new Officers and Executive Committee members took over for the 2013-2014 year. Below are pictures of some of the highlights of the conference.

A representative from Crater of Diamonds State Park shows the NASLR crew how to screen for diamonds. Unfortunately, nobody from NASLR found any diamonds, but there were others who did.

NASLR stopped at the Umetco/Stratcor quarrying site to learn about its reclamation and water treatment which involved a very deep lake.

The Great Scottdini magic show was part of this year's banquet and awards ceremony.

The Harshman's receive the Non-Coal Reclamation Award for the thorough work they put into reclaiming their Finerty Quarry. Their reclaimed land was exemplary of what good reclamation can achieve to turn deeply cut, mined land into something that can be used for wildlife and livestock.

Dave Dean (WV) accepts the NASLR Outreach Award for Alpha Natural Resources' Brooks Run West site. Alpha's involvement with the community ranged from donations to working with the WV Air National Guard to create a drop zone for training on their reclaimed site.

P&N Coal Company receives the Coal Reclamation Award for an outstanding job in reclaiming mined lands that included an unsafe highwall, a diverted stream channel, and the potential for toxic water.

Carol Brown, a graduate student from WVU, accepts the NASLR scholarship for her work with switchgrass on reclaimed surface mines.

Looking Ahead

NASLR has been considering a merger with the American Association of Mining and Reclamation (ASMR). Like ASMR and many other organizations across the country, NASLR has been affected by a tumultuous economy, a dwindling coal market, and strenuous federal regulations on mining and air/water quality. Preliminary discussions at the national conference and in the Executive Committee have pointed toward merging as a viable option to optimize NASLR's ability to function and fortify it against future uncertainties. While merging with ASMR is not the only option, it is a strong option.

Please read the following article carefully and visit the ASMR website. Contact Derek Giebell (derek.w.giebell@wv.gov) if you have any comments, questions, or concerns about merging with ASMR or any other organization. We would appreciate any input you have to offer as we consider different possibilities. If you are interested in receiving ASMR's official publication, *Reclamation Matters* (free of charge, as noted in the following article by Bob Nairn), please provide Derek with your full name and mailing address by February 10, 2014.

NASLR and ASMR: A Match Made in Reclamation

Bob Nairn
ASMR President

As the current President of the American Society of Mining and Reclamation (ASMR), it was my sincere pleasure to attend and present at the recent NASLR National Meeting in Hot Springs, AR. Our societies share both interest in and passion for land and water reclamation, and I hope we can develop successful collaborative relationships. The stated purpose of ASMR is "*to encourage and assist any agency, institution, organization, or individual in efforts to reestablish, enhance, or protect our natural resources disturbed by mining or other human activities, or by disturbance through natural events.*" One of the objectives of ASMR is "*to support other reclamation societies and organizations,*" and I encourage all NASLR members to visit www.asmr.us to learn more.

Membership in ASMR is open to any person with an interest in the reclamation of lands and waters. Annual dues are reasonable: $10 for students, $50 for regular members and $100 for sustaining members (emphasizing the organizational affiliation) or corporate members. There is also a one-time $500 life membership available. All ASMR members are automatic members of the International Affiliation of Land Reclamationists (IALR), which includes ASMR, along with our British, Canadian, Australian and Chinese colleagues. In 2012, ASMR had over 400 members representing 37 US states and 12 countries. ASMR currently maintains seven Technical Divisions: Ecology, Forestry and Wildlife, Geotechnical Engineering, Land Use Planning and Design, Soils and Overburden, Tailings and Water Management. These divisions reflect the diverse interests and expertise of the membership.

The annual ASMR National Conference, typically held in June and alternating between the eastern and western US, is the society's "Big Event." The conference includes workshops, plenary

presentations, concurrent oral technical sessions, poster sessions, exhibitors, receptions, an awards banquet, a social event and field tours. Our next meeting is in Oklahoma City, OK from June 14-21, 2014. **ASMR would be pleased to include a "NASLR Session" at our next meeting, with NASLR choosing speakers and moderating the session. Perhaps a joint meeting could be organized in 2015 or 2016, including closer collaboration and sharing organizational responsibilities.** The awards banquet is the highlight of the conference, where both professional (William T. Plass Award, Reclamationist of the Year, Barnhisel Reclamation Researcher of the Year and Pioneers in Reclamation Award) and student (BS, MS and PhD Memorial Scholarship, Best Student Presentation and Poster, Student Research Grant and Student Travel Grant) award winners are honored.

ASMR published National Conference Proceedings volumes from 1984 to 2012, which serve as invaluable resources for cutting-edge reclamation research, technologies and case studies. The *Journal of ASMR*, first published in 2012, is our new peer-reviewed, online scientific journal. *Reclamation Matters*, published twice a year since 2004, is the official society publication and provides news, features, announcements and case studies. **ASMR would be pleased to offer *Reclamation Matters* to all NASLR members free of charge.** Current ASMR initiatives include a survey of members needs, promotion of student and early career professional participation, an improved and expanded electronic presence and strategic expansion of the membership base.

Having attended the last NASLR national meeting, I can say with great confidence that ASMR and NASLR members share professional interests. NASLR members' expertise across industries (including coal, sand and gravel, limestone, etc.) fits quite well with ASMR's focus of serving as a resource across the entire reclamation profession. Furthermore, as the ultimate driver of the reclamation profession, the regulatory focus of NASLR's members notably compliments ASMR's members areas of technical expertise, and could form a new Technical Division. I hope that NASLR's members will consider the benefits that ASMR offers, and that we explore ways to collaborate as professional societies and as individuals. Please do not hesitate to contact me or any other ASMR members as we explore these possibilities, and thank you for your consideration.

Notes from the Field

"Land Use"
Dean Spindler
Illinois Office of Mines & Minerals

Land reclamation has the luxury of creating new land uses and land use capabilities or in many instances recreating the land uses which existed before mining. We know from experience that there are some limitations depending on the quality and amount of overburden to the amount of mineral mined.

In one of my sessions at a teacher workshop, I start out showing a series of images and asking if an area is reclaimed. The intent is to get the teachers to start thinking about the value they give to different land uses. The first image is some ungraded prelaw surface mined land which is barren. The answer is a unanimous no. The second is the same vintage, ungraded, yet vegetated with many small lakes. The third is also the same, but with trees. Here the differences are evident. Those who value grazing or fishing or forests conclude which land is best reclaimed according to their preferences. When told the pre-mining land use was farmland, another aspect is added. Should reclamation be valued against what was there prior to mining?

The concept of what is the highest and best land use is of course not only a matter of climate and geography, but it also changes over time due to societal needs and politics. Even what is considered pre-mining land use varies from reclamation law to law. Illinois is a state where 2/3 is currently in cropland. Of that cropland, the majority originally was in tallgrass prairie vegetation with the remainder deciduous forest. In addition, many of these acres would be classified as wetlands. These were converted in the 1800's to

cropland which at the time was considered a higher land use.

Illinois passed its first reclamation law in 1962. Prior to that time over 100,000 acres had been mined with over three quarters of those either naturally or deliberately reforested. The lack of grading (compaction) and mix of broken rock and glacial material was optimal for forest growth. Minimal grading was allowed to promote reforestation until 1968. At that time public opinion changed and valued increased grading and pasture vegetation as a higher and better land use. It was not until 1971 that public opinion again changed to value cropland higher. Lakes and shallow water created under all of these sequential laws were an incidental effect of the mining and amount of grading, rather than created due to a high value land use. The recreation, hunting, and wildlife benefits of both water and reforestation were also significant incidental effects under the pre (cropland and pasture) reclamation policies.

In the early 1970's when a national reclamation law for coal mining was being developed there was concurrently a national concern that farmland was being converted to other land uses at a rapid rate from a variety of causes, including mining. The ability to feed the expanding world's population was a significant issue. The original version of the Surface Mining Control and Reclamation Act (SMCRA) which was vetoed, called for a moratorium of surface mining on prime farmland. The final version which provided for full restoration, under court interpretation, deemed prime farmland the highest land use and mandated no net loss. The issue of forest and wetland conversion to cropland was not at the forefront like it is today.

It was not until the late 1980's and the early 2000's that wetlands and forests, respectively, came to be viewed as significantly higher in value than they were in the 1970's. We now even have the circumstances where overlapping authority for prime farmland (which are also classified as wetlands) under SMCRA and the United States Army Corps of Engineers (USACE) mandate no net loss replacement to two different land uses. Wetland mitigation ratios of greater than 1 to 1 have also forced land uses to compete for space within and sometimes outside of the permit boundaries to satisfy both agencies. One option that has been considered but not adopted is to create prime farmland which has an infrastructure built in to allow it to be flooded similar to what is used for waterfowl management. The philosophy of USACE in mitigation ratios conflicts with some of the premises of SMCRA in that it both attempts to compensate for historic wetland loss and attempts to compensate for the functionality of wetlands in a very short time, particularly forested wetland in a much shorter time period than envisioned under SMCRA.

Reforestation has moved up on the land use hierarchy for a variety of reasons, including the issue of carbon sequestration and values of importance in Appalachia.

If possible, considering the limitations of overburden quality and volume, reclaiming to the original land capability as the highest priority over land use allows future decisions for land use priorities more options to meet those goals. For example, a soil which has the capability to produce crops yet is currently in pasture could be reclaimed with the sufficient depth and quality to support row crops and still be reclaimed to pasture vegetation. Creating a rooting medium to support successful forests or crops is challenging as trees and crops have different standards for optimum growth, but some tradeoffs can be made.

In the Midwest mining areas, we have very few natural lakes, so their creation in final cuts must displace other land uses permanently. Water is considered a very high land use, although not the highest under SMCRA. As far as land value, it would be the most marketable in Illinois. Some would argue that water, either for recreation or aquaculture, will increase in value even more in the future.

What is apparent is that each land use has its own constituent base. Even outside of the reclamation arena, a Department of Natural Resources must make land use management decisions for its land to balance the interests of hunting different

animals, a variety of other recreational uses, and even minimizing access to certain areas to impacts. Each of these decisions affects the desired vegetation to support the managed use.

Visionary operators and regulatory agencies must be allowed the flexibility to make reasonable decisions for the reclaimed land to be a long term natural resource to meet society's needs even after the mineral is gone.

"2013 Appalachian Regional Reforestation Initiative Conference in Review"
Paul Emerson
West Virginia Dept. of Environmental Protection

(Note: Paul submitted this article prior to leaving WV DEP for a position outside of reclamation.)

The 2013 Appalachian Regional Reforestation Initiative (ARRI) conference was held in Flatwoods, WV this year and showcased some of the best reforestation work in the state. The conference started with a tour of Brooks Run 7-Pines mining complex. This surface mine has been practicing the Forestry Reclamation Approach (FRA) for many years and has become a showcase for how this approach can lead to a young but healthy forest. The first couple of stops featured a ridge that had been reclaimed over the course of many years with tree planting occurring shortly after final grading and seeding. These stops allowed attendees to walk through multiple years of plantings to see the effects of how proper material handling and grading can greatly increase tree growth.

The next stop at Brooks Run showed active dumping of the growth media over the top of compacted gray sandstone. The gray sandstone had already been dumped and tracked to its approximate original contour and previously stockpiled topsoil was being placed on top. The dozer operator did a tremendous job demonstrating the FRA approved single pass grading. This method allows for a non-compact planting media which does not inhibit root growth.

After lunch at Big Ditch Lake, the tour went to ICG Birch River facility where more FRA reclamation showed young but striving stands of trees. One stop in particular was at a demonstration plot clearly showing the superiority of brown sandstone as top-soil substitute as compared with gray sandstone. Of even greater interest was how the addition of bark mulch helped retain soil moisture and greatly improved tree growth and survival.

The next day of the conference was focused on research and presentations. This year's conference featured talks from professors from West Virginia University and Virginia Tech as well as presentations from numerous researchers from the US Forest Service. Presentations were given about a range of topics including Green Forest Works and their goal of turning legacy mines into productive forests, to NRCS financial assistance programs, to the USFS blight resistant elm trees. Overall, it was a great conference to attend and showcased some of the finest reforestation work in the region.

Newsletter Articles

Both this newsletter and the last newsletter have had articles written and submitted by Dean Spindler from Illinois and by representatives from West Virginia in the "Notes from the Field" section. While we greatly appreciate their efforts, we would like to include information from other states as well. Industry, academia, and state personnel dealing with reclamation are all welcome to submit articles. Diversity is key!

Here are some ideas for the types of articles you or someone from your state can submit:

- Reclamation projects
- Policy changes and ongoing discussions
- Projects that reach out and educate people about mining and reclamation
- New techniques and technology
- Discussions, thoughts, and points of view on various topics of interest that affect reclamationists
- Other ideas are welcome

Please think about how you can contribute to the newsletter. If you have questions, email Derek. Send your submissions using the form on the NASLR website to Derek at derek.w.giebell@wv.gov.