



FEBRUARY 2012

The Newsletter of the Pennsylvania Association of Professional Soil Scientists
PO Box 871, Mechanicsburg, PA 17055

Inside:

- 2 Susquehanna River Field Tour, Oct. 29, 2011
- 3 PA MS4 Program
- 4 President's Message

**Nominations for
2013-2015 Board
of Directors are
now being
accepted**

Licensing and Legislation - Annual Meeting, Harrisburg by Michael Lane

PAPSS held its annual business meeting on October 28th at the Southeast Regional Office of PADEP in Harrisburg. Featured guest speaker, Senator Michael Brubaker (R-Lancaster, Chester), agronomist, former PAPSS member, and chairman of the Senate Finance Committee, spoke to PAPSS about the legislative process, and specifically about legislation directed to establish a state license to practice soil science. Vince Phillips of Phillips Associates gave an interactive, hour-long ethics presentation that elicited discussion about personal and professional conduct and the relation of ethics to law.

In PAPSS business, the membership voted for dues to remain unchanged for 2012, and voted to provide funds to the soil judging teams at Penn State and Del Val College, currently coached by PAPSS members Patrick Drohan and Mike Sowers. PAPSS will provide \$500 to the collegiate soil judging teams to be split evenly. PAPSS also awarded a \$500 academic scholarship to Mr. Brian Thrush. Brian is from Greencastle, PA and is attending Penn State with a major in Agricultural Systems Management and a minor in Environmental Soil Science.



PAPSS presented to Senator Brubaker a soil monolith of the Hazleton series, his second-favorite soil series.

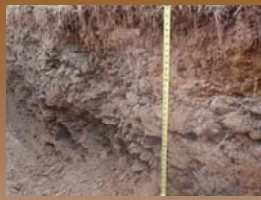
PAPSS also agreed to meet with a liaison group from the Pennsylvania Association of Sewage Enforcement Officers (PASEO) to investigate the possibility of providing course content and trainers for the continuing education program for certified Sewage Enforcement Officers. Dan O'Connell, PASEO, spoke about the idea of working with PAPSS to offer SEO training, since DEP has stopped offering anything following the expiration of the prior contract with PSATS. PASEO and PSMA are currently the only approved training sponsors. The Advanced Soils course would be offered jointly, with PAPSS being a course content provider and PASEO being the training sponsor. In addition to the PAPSS/PASEO meeting, Mark Mills will be convening a working group of interested PAPSS members to review regulations and guidance pertaining to the PA on-lot sewage disposal program.

2012 Board of Directors

Michael Lane (11-13), President
Russ Losco (10-12), Vice President
Laurel Mueller (10-12), Treasurer
Chris Whitman (11-13), Secretary

Bill Davis (10-12)
Steve Dadio (12-14)
Yuri Plowden (12-14)

The Board would like to extend a special thank you to out-going Board member Cathy Sorace for her service as PAPSS Board Member and Secretary. ■



**Program
Committee:**

Events in the early
planning stages for 2012:

Marcellus Shale Drilling
Tour in cooperation with
Keystone Chapter of Soil
and Water Conservation
Society

Hydric Soil Training for
Wetland Professionals
(Laporte, PA)

Erie County field day

Annual Meeting and
Technical Session –
Conewago Watershed,
Lebanon and Dauphin
Counties

Soils and Civilizations along the Susquehanna River

Field Tour – October 29, 2011

by Michael Lane

An early season snow storm that dropped up to a foot of snow on Central Pennsylvania did not deter attendees of the fall PAPSS field tour, "Soils and Civilizations along the Susquehanna River". The bus tour began with a trip to the State Capitol building and a tour of the rotunda, and the chambers of the Supreme Court, House, and Senate. When President Theodore Roosevelt attended the dedication of the building on October 4, 1906, he said, "This is the handsomest building I ever saw." The Capitol was designed in the American Renaissance style by Philadelphia architect Joseph Huston (1866-1940), who envisioned the building as a "Palace of Art." Built and furnished at a cost of \$13 million, the Capitol features paintings, stained glass and furnishings by some of the best artisans of the day.

Back on the bus, Richard Geidel, archaeologist with Navarro & Wright, discussed the historic and pre-historic uses of the river islands, including successive use by Native Americans from the Clemson, Shenks Ferry, and Susquehannock cultures. He provided soil horizon descriptions for archaeological excavations on City Island and Calver Island. Retired geologist William Sevon next spoke about the geology and geomorphology of the Susquehanna River water gaps and the prominent ridges around Harrisburg.



The tour moved on to the Fort Hunter mansion, along the eastern shore of the river, north of the city. An archaeological dig was begun in 2011 by the PA Historic and Museum Commission to investigate past use of the property and to try to determine the actual location of the original Fort Hunter. The mansion is located on an elevated bluff between Fishing Creek, the Susquehanna River, and the low-lying backwater area to the east, providing an excellent lookout point for watching the river during the French and Indian War. The dig will continue into the Spring of 2012 and an excavation between the house and Fishing Creek was open for PAPSS to explore.

Brook Lenker promotes the Susquehanna River Trail

Before lunch, Mr. Brook Lenker with DCNR Education and Outreach and the Susquehanna River Trail Association provided an overview of the Susquehanna River Trail, an island-hopping float from Sunbury to Harrisburg. The trail includes dozens of designated primitive campsites, used on a first-come, first-served basis. For more information visit www.susquehannarivertrail.org.

The snow and cold did work to cut the trip short, and the alluvial test pit excavations along Fishing Creek on the nearby Harrisburg Country Club property were dropped from the tour. It is hoped that the test pits at the Country Club can be incorporated into a future PAPSS event. Thanks to Mark Mills for organizing the tour, and to the speakers, and to all who braved the weather. ■

Marcellus Shale Survey for Watershed Groups and Private Well Owners

This survey is part of the efforts of Mr. Brian Oram, Professional Geologist, and owner of B.F. Environmental Consultants Inc to help educate and inform the community. The full survey result will not be published and all information is confidential. Part of this survey will be used to create a new free booklet that helps educate private well owners and policy makers in our community. This survey is not funded by any outside company or organization and solely funded by Mr. Brian Oram. Also, the survey is asking if you would consider participating in a research project related to the level of radon in groundwater. The project is self-funded by Mr. Brian Oram. A summary of the findings will be used to update our NEW Free Private Well Owner Booklet.

Please Complete this Online Survey <http://www.surveymonkey.com/s/NMG6RQ3> ■

Pennsylvania MS4 Program and Soil-Based BMPs by Steve Dadio

Starting in March, 2013, many municipalities throughout Pennsylvania will have to come into compliance with the new permit for their MS4 Program (PAG-13). There will be significant changes that will be required for municipalities that are impacted by this new permit in terms of adding stormwater BMPs. Most of these BMPs will be soil-based, and soil scientists should be consulted to determine their feasibility. Listed below are some key facts regarding the MS4 Program.

What is an MS4?

The Municipal Separate Storm Sewer System (MS4) is the system within a municipality that conveys stormwater. The MS4 includes municipally owned pipes, ditches, and roads that contribute to their storm sewer system. This does not include sewage treatment conveyance, a combined sewer system, or privately owned and maintained storm sewer systems (e.g., neighborhood detention basins).

This program was established by the EPA and is administered in Pennsylvania by the DEP. The purpose of this program is to increase awareness about stormwater as a potential pollutant to surface waters.

Are all MS4s regulated?

Only MS4s that lie within Urbanized Areas, as defined in the 2000 Census are regulated by the state through PAG-13. The figure below illustrates where the MS4s and Urbanized Areas are located. As you can imagine, these urbanized areas are primarily in the cities and adjacent suburbs throughout Pennsylvania. However, the Urbanized Areas often overlap onto some of the adjacent farmland and open space as well.

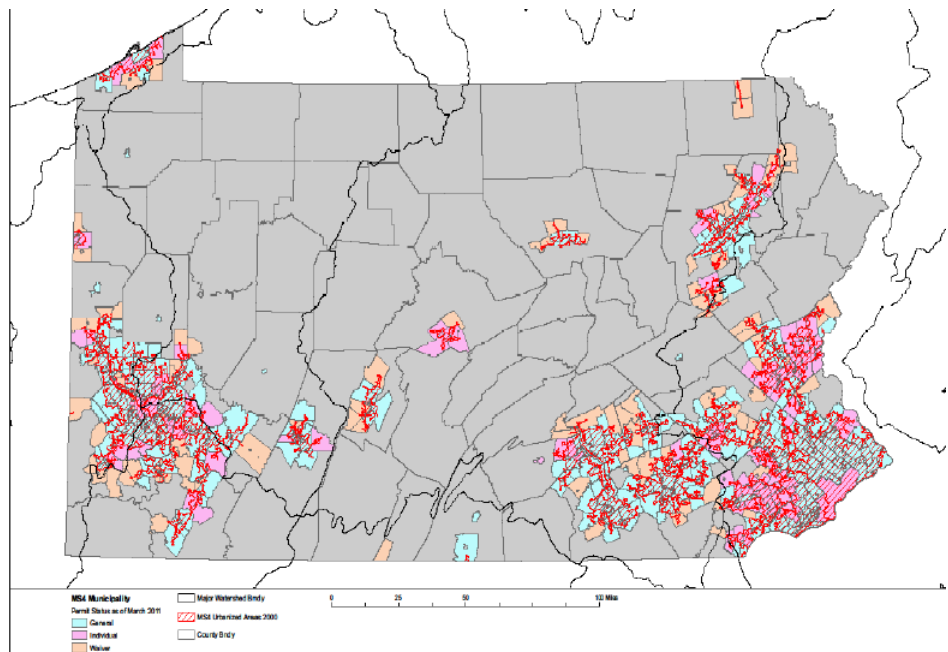


Figure 1. Map of MS4s within Pennsylvania (from DEP “Wave” Program)

How long has this program been in place?

The PAG-13 was first issued in 2003. The initial permit was supposed to be for five years. For various reasons, Pennsylvania was granted 5 years worth of extensions prior to the issuance of this new permit. The first permit consisted of 6 minimum control measures (MCMs) that covered education, participation, illicit discharges, engineering design, construction inspection, and municipal responsibilities.

What’s in this new permit?

In the new permit, there is a continuation of the six MCMs. One significant change, however, is that if an MS4 lies within a TMDL watershed (as determined by the EPA), that each municipality will have to develop and install BMPs to comply with the TMDL reduction criteria set forth by the EPA for that particular watershed.

TMDLs? Doesn’t that only apply to sewage treatment plants?

While TMDLs (Total Maximum Daily Loads) have historically been used for point source discharges (e.g., sewage treatment plants), this criterion is now being used for non-point discharges, such as stormwater. A TMDL is essentially a diet for a watershed: any pollutant above that TMDL would cause that watershed to become impaired. ☺

Save the Date:

Northeast
Cooperative Soil
Survey Conference
June 18-21, 2012.
The conference will
be held at the
University of Maine at
Orono.

If you want to get on
the NECooperative
Soil Survey email list,
contact Tony Jenkins,
State Soil Scientist in
Maine, at:

[tony.jenkins@
me.usda.gov](mailto:tony.jenkins@me.usda.gov)

DID YOU KNOW?

If you log onto the United States Geologic Survey website (www.usgs.gov),

and search for "soil science", there are **1.1 million** hits on their website.

If you search for "soil morphology", there are **11,400 hits** on their site.



The TMDL can be sediment/siltation, nutrients (phosphorous, nitrogen), metals, or contaminants (PCBs, chlordane, etc). Each municipality will have to develop a strategy of BMPs that will help reduce the particular pollutant from their MS4 in order to comply with the TMDL guidelines.

BMPs

The BMPs may include: basin retrofits, infiltration basins and trenches, created wetlands, riparian buffers, or porous parking lots, sidewalks, etc. In each of the examples listed above, there is a soil component involved with that BMP.

How can I learn more?

There are 16 training sessions, sponsored by PSATS, throughout Pennsylvania this winter. If you are interested in attending, please see the PSATS brochure at the following address: http://www.palocalgovtraining.org/pdfs/publicworks/sewer_system_permits_0112.pdf ■

President's Message

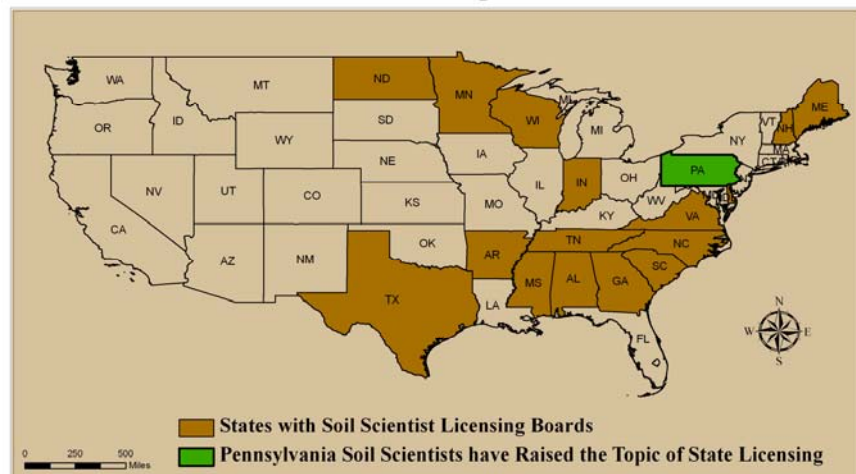
by Michael Lane

Thank you to all members who attended the annual business meeting and soil science licensing discussion on October 28th in Harrisburg. Especially productive was the group's discussion with State Senator Mike Brubaker. As a result of the meeting, Senator Brubaker has offered to sponsor legislation that would create a state license for professional soil scientists. The Senator's office will be drafting a co-sponsorship memo for distribution to other Senatorial offices. When the memo is ready to be sent out, we will need you to contact your Senator to stress the importance of soil science licensing to get as many sponsors as we can.

Requirements for licensure are proposed to match the current education and experience necessary to obtain a certification through the SSSA certification program. The license would be housed under the existing registration board for engineers, geologists, and land surveyors.

The PA Council of Professional Geologists has written a letter of endorsement, and we will continue to work with and educate engineers and land surveyors about the need for a soil science license. I urge each member to submit to the PAPSS Board a concrete example of monetary harm or harm to public health, safety, and welfare resulting from a lack of soil scientist expertise. These examples will be necessary to convince legislators of the need for licensed soil scientists.

Soil Scientist Licensing in the United States



The Pennsylvania Association of Professional Soil Scientists (PAPSS) supports legislation to require licensing of Soil Scientists within Pennsylvania. Sixteen other states have recognized the importance of soil and the need to protect this valuable resource through professional licensing.

Map created November 17, 2011. Reference: <https://papss.org/wp-content/uploads/2011/09/FINAL-White-Paper-Licensing-of-Soil-Scientists.pdf>

In January 2012, PAPSS received a matching grant of \$5000 from the Soil Science Society of America for the purpose of promoting legislation for a soil science professional license. I look forward to providing updates to you through email and newsletters throughout the year. ■

Comments or contributions? mlane@brickhouse-environmental.com
www.papss.org