A Manual for Soil Investigations in Pennsylvania
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Pennsylvania in recent years, like other states, has seen a need for more detailed soil information in environmental investigations. Increasing use of soil for stormwater infiltration, on-lot sewage disposal in more sensitive areas, agricultural nutrient management, and erosion control have all contributed to a need for more detailed, high-quality, site-specific soil data. This has been occurring during a time when budgetary constraints coupled with the completion of the Natural Resources Conservation Service (NRCS) Web Soil Survey for the state have resulted in the significant reduction in staff at the NRCS. This void is being filled by private consultants.

As Pennsylvania lacks a licensing program for soil scientists, this has resulted in consultants with a wide range of qualifications conducting soil investigations. In some cases, qualified soil scientists with graduate degrees find themselves competing against excavators who may lack a high school diploma. As a result, clients find themselves at the mercy of consultants who may not be qualified, engineers and architects may find themselves creating designs based on invalid data, and regulators are forced to approve projects that may not function as designed. Even among qualified soil scientists, the constraints of the marketplace have sometimes resulted in a lack of consistency in reporting of information, with some reporting only the bare minimum of detail required to satisfy a regulation that may be vaguely worded. This can result in important information not being provided that could mean the difference between success and failure. In the end it is the public welfare that suffers from such practices.

To remedy this situation, in 2007 the Pennsylvania Association of Professional Soil Scientists (PAPSS) began work to develop a set of standards to fill the void. A committee of four soil scientists, including two members of the PAPSS board of directors, set to work reviewing standards and protocols from other states, regulatory requirements in Pennsylvania, and published standards. The final draft included input from 16 soil scientists and peer review from representatives of the consulting and regulatory communities, academia, and the NRCS. The result of this 3-year effort is the PAPSS Manual for Soil Investigations in Pennsylvania, version 2.0, published in the autumn of 2010.

The manual discusses the practice of soil science as it relates to evaluating site-specific soil investigations and is primarily directed at nonagricultural and nonsilvicultural land use management of a site. It is hoped that by publishing this manual, PAPSS will provide the format of a document that will advance the practice and be of use to soil scientists and other professionals in the future. The publication of this manual sets a standard for testing, mapping, and reporting. Although at present there are no legal requirements to use the standards published in the manual, it is the hope of PAPSS that the statement “This testing was conducted in accordance with the PAPSS Manual for Soil Investigations in Pennsylvania” will become a common method of reporting quality assurance.