# Stephen D. Dadio, CPSS/CPSC - Environmental Manager

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## SUMMARY OF EXPERIENCE

Mr. Dadio, Environmental Manager at CEDARVILLE Engineering Group, LLC, has 17 years of professional experience and leads our environmental department. He has used his extensive technical knowledge in ecological and hydrological fields for wetland delineations, watershed studies, environmental site assessments, and nonpoint source pollution prevention programs. Mr. Dadio has extensive experience in the field of soil science for a wide variety of land uses. Specializing in urban and disturbed landscapes, his career has focused on green infrastructure solutions in maintaining natural hydrologic conditions. He also regularly serves as a Construction Manager, with experience in estimating, field management, site inspection and quality control.

## PROFESSIONAL AFFILIATIONS

- Pennsylvania Association of Professional Soil Scientists, President 2009, 2010
- Member, DEP Stormwater Loading Re-Write Workgroup
- Member, Soil Science Society of America
- Member, W.B. Saul Agricultural High School (Philadelphia) Natural Resources Curriculum Advisory Board
- Adjunct Faculty, Delaware Valley University, Doylestown, PA

## EDUCATION

M.S. Soil Science
Pennsylvania State University

B.S. Soil Science
Cornell University

## PROFESSIONAL CERTIFICATIONS

SSSA (ARCPACS)
Certified Professional
Soil Scientist

SSSA (ARCPACS)
Certified Professional
Soil Classifier

PAPSS Registered
Professional Soil Scientist

Delaware DNREC Licensed
Class D Soil Classifier

Pennsylvania Licensed Sewage Enforcement Officer

NICET Certified in Highway Construction and E&S Control

## PUBLICATIONS

2015. Dadio S., Barkasi, A. Urban Soils: The Foundation for Green Infrastructure. Villanova Urban Stormwater Partnership Symposium, VUSP, Villanova, PA.

2014. Shuster W., Dadio, S., Urban fingerprints on soil morphology and hydrology – a summary of field investigations in US cities, across different soil orders. Soils in the City Conference. IEWA, Chicago, Illinois.

2012. Dadio S., Drohan, P.J., Utilizing Ground Penetrating Radar and EM to Supplement Deep Borings in Urban Soil Surveys. Abstract 287-1, Soil Science Society of America, Cincinnati, Ohio, poster presentation and abstract.

2012. Losco, R., S, Dadio., A Contrasting Study of Ohio Urban Soils - Cleveland Vs. Cincinnati. Abstract 287-2, Soil Science Society of America, Cincinnati, Ohio, poster presentation and abstract.

2011. Barkasi, A, S. Dadio, W. Shuster, R. Losco. Urban Soils and Vacant Land as an Urban Stormwater Re-source, Abstract 89, ASCE-EWRI World Environmental and Water Resources Congress, Albuquerque, New Mexico, oral presentation (published)

2011. Shuster, W., A. Barkasi, S. Dadio, P.J. Drohan, T. Gerber, T. Houser, R. Losco, K. Reinhold, J. Wander, and M. Wigington. Moving beyond the udorthent – a proposed protocol for surveying urban soils to service contemporary urban ecosystem management data needs. Soil Survey Horizons, 52:1-8.

2010. Drohan, P.J., Ciolkosz, E.J., Lindeburg, K. S.; Waltman, W.J.; Dadio, S.D. Last glacial aeolian deposits in the conterminous U.S. Abstract 227-4 E. Soil Science Society of America, Long Beach, CA. Poster presentation.

CEDARVILLE Engineering Group, LLC
Sustaining Communities by Design

2010. Drohan, P.J. A Pedologist's perspective of the Critical Zone. Abstract 111-5. Soil Science Society of America, Long Beach, CA. Poster presentation.

Shuster, W. D., Dadio, S. D., Burkman, C. E., Earl, S. R., & Hall, S. J. (2015). Hydropedological assessments of parcel-level infiltration in an arid urban ecosystem. Soil Science Society of America Journal, 79(2), 398-406.

Shuster, W. AND S. Dadio. Soils Investigation for Infiltration-based Green Infrastructure for Sewershed Management (Omaha NE). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-14/063, 2014.

Shuster, W. D., Dadio, S., Drohan, P., Losco, R., & Shaffer, J. (2014). Residential demolition and its impact on vacant lot hydrology: Implications for the management of stormwater and sewer system overflows. Landscape and Urban Planning, 125, 48-56.

Barkasi, A. M., Dadio, S. D., Losco, R. L., & Shuster, W. D. (2012). Urban soils and vacant land as stormwater resources. In World Environmental and Water Resources Congress 2012: Crossing Boundaries (pp. 569-579).

**Published Soil Surveys**

New York City Soil Survey Staff. 2005. New York City Reconnaissance Soil

Survey. United States Department of Agriculture, Natural Resources Conservation Service, Staten Island, NY.

Hernandez, L. A., & Gailbraith, J. M. (1997). Soil survey of South Latourette Park, Staten Island, New York City, NY.

## PROFESSIONAL EXPERIENCE

**United States Environmental Protection Agency, Cincinnati, Ohio –** CEDARVILLE Engineering Group, LLC conducted detailed soil surveys and hydrologic investigations in the cities of Phoenix, AZ, Atlanta, GA, New Orleans, LA, Portland, ME, Detroit, MI, Omaha, NE, Camden, NJ, Cincinnati, OH, Cleveland, OH, San Juan, PR, and Tacoma, WA to determine the stormwater management potential for the soils in vacant lots in order to mitigate Combined Sewer Overflow (CSO) events. The urbanized soils collected from the sites were analyzed to identify feature classifications that are similar to native material, to develop a database of soil information on a regional basis for planning.

**NPDES Program Manager-City of Coatesville –** Plan all stormwater activities required to maintain compliance with the MS-4; PAG Permit. This includes the development of a TMDL plan for sediments, nitrogen, and phosphorous. Also served on the Christina Basin TMDL Improvement Committee (CTIP) as a municipal representative.

**NPDES Program Manager-Westtown Township –** Plan all stormwater activities required to maintain compliance with the MS-4; PAI Permit. This includes the development of a TMDL plan for phosphorous.

**NPDES Program Manager-West Norriton Township –** Plan all stormwater activities required to maintain compliance with the MS-4; PAG Permit. This includes the development of a Pollutant Reduction Plan for impaired waters.

**On-Lot Sewage Sewage Management Program, Newlin Township –** Developed a Sewage Management Program for Newlin Township. This program involves the implementation of an ordinance, resident education, and associated record documentation.

**Grant Writing, City of Coatesville -** Successfully procured two grants for the City of Coatesville to repair aging infrastructure, particularly stormwater inlets. These grants totaled $277,500 from both the PA DCED WRPP Program ($127,500) and PA DEP Growing Greener ($150,000).

**Construction Manager, Several Municipalities -** Supervised three construction inspectors working on various land development projects throughout southeastern Pennsylvania. Coordinated work with both municipal officials as well as private construction managers.

**Timber Harvest Reviewer, West Nantmeal Township -** Review and inspect timber harvests in accordance with local regulations. Interact with Chester County Conservation District in the facilitation of these unique permits.

**Stargazer Road land acquisition, Newlin Township –** Conducted Phase 1 Environmental Site Assessment for property that was purchased by Newlin Township.

**305 Kimberton Road Phase 1 and Phase 2, Schuylkill Township –** Conducted Phase 1 and Phase 2 Environmental Site Assessment for property that was purchased for a private land development. These tasks include detailed site characterization for possible contaminants.

**USDA Agricultural Research Service (USDA-ARS) –** Completed detailed evaluation of soils in central Pennsylvania to determine the presence of dense, brittle soil horizons (fragipans). This project involved detailed site characterization and sampling to assist with the greater research project.

**Valley Forge Distribution Center –** Supervised the design of a water line extension from an existing facility to the main several hundred feet away. This involved the design of a water meter pit and also required extensive coordination with PA American.

**Wetland Delineation for Giant, Lower Paxton Township, Dauphin County –** Completed a wetland delineation for the construction of a supermarket. This included field delineation and submission of a completed wetland report.

**Geotechnical Borings, 827 Carpenter Street, Philadelphia, PA –** Completed geotechnical borings and produced soil bearing capacity calculations for the construction of a 3-story residence in South Philadelphia.

**Historic Resources Evaluation, Whitehall Inn, Spring City, PA –** Completed all forms and documentation as required by the PHMC for this redevelopment project.

**On-Site Sewage System Testing and Design, West Bradford Township –** Completed detailed soil testing to determine the suitability of on-site sewage disposal. Completed a design for an inground system that was required by the Chester County Health Department in order to receive a permit.

**Stormwater Management and Loading Rate Determination, Phoenxiville, PA -** Completed soil testing for a stormwater infiltration basin. Produced report with a justification of enhanced loading rates in accordance with PADEP guidance. When the basin encountered problems, completed a forensics investigation to determine the problem source (compaction); developed a remediation strategy to restore the functionality of the basin.

**Stormwater Streetscape Project in Port Richmond, Philadelphia, PA -** Completed detailed soil and stormwater evaluation for a PWD-funded streetscape project in the Port Richmond section of Philadelphia. This involved detailed urban soil investigation as well as permeability testing in accordance with PWD regulations.

**Environmental Permitting, Brandywine Branch Distillery, Elverson, PA -** Completed detailed soil and stormwater evaluation, wetland determination, PNDI clearance, and archaeological screening for the repurposing of a barn to a craft distillery. Interacted with local, state, and federal agencies to gain approvals.

**Environmental Permitting, Flourtown Road Project, Lafayette Hill, PA -** Completed detailed soil and geologic investigation for stormwater evaluation and wetland investigation for proposed land development.

**Environmental Permitting, Brandywine, Lower Moreland High School, Huntington Valley, PA -** Completed detailed soil and stormwater evaluation, wetland determination, and PNDI clearance for the redevelopment of Lower Moreland High School.