



## **2018 NACD Northeast Regional Meeting and 71st PACD/SCC Joint Annual Conference**

DoubleTree Resort by Hilton Hotel, Lancaster, PA  
July 15-18, 2018

Four breakout sessions are planned on the afternoon of Monday, July 16 and four tours will take place on the morning of Tuesday, July 17.

### **Breakout Sessions**

The breakout sessions will take place on Monday, July 16, from 2:15 p.m. to 3:15 p.m. and repeat from 3:30 p.m. to 4:30 p.m. so everyone can attend two of the four breakout sessions.

### **Conservation Tours**

The tours will take place on Tuesday, July 17, from 8:30 a.m. to 12:30 p.m.

- Tours are included for anyone attending on Tuesday.
- During registration, each registrant will be asked to select a tour (or opt out, if desired).
- We recommend that tour participants wear cool, comfortable clothes, as well as outdoor shoes, hats, and sunscreen.
- We have ordered sunny weather, but tours will take place rain or shine, so please pack your rain gear, just in case!

The breakout sessions and tours are really the centerpiece of the conference. Designed to complement one-another all planned around the same four themes.

### **Please select a theme for more information:**

- [Research, Education, and Restoration at Stroud Water Research Center](#)
- [Pennsylvania's Dirt, Gravel, and Low Volume Road Maintenance Program](#)
- [Stormwater Management and Healthy Watersheds](#)
- [Conservation and Soil Health in Agriculture](#)

## Research, Education, and Restoration at Stroud Water Research Center



Since 1967, Stroud Water Research Center has been leading the effort to produce innovative solutions for preserving and restoring fresh water. The center seeks to advance knowledge and stewardship of freshwater systems through global research, education, and watershed restoration.

### **Session: Current Research at Stroud Water Research Center**

Center staff will share information from three research topics. Learn about Stroud's watershed restoration implementation and monitoring project on White Clay Creek to address water quality, water quantity, and ecosystem resiliency. Take a look at chlorides, including monitoring data from southeastern Pennsylvania and experimental work on chloride toxicity in aquatic life. Get an overview of the center's current work on soil health, including an evaluation of soil health metrics in a paired study and the beginning of a six-year project to compare: more traditional agricultural practices; a conservation system including no-till and multispecies cover crops; organic practice implementation; and implementation of the Rodale Institute's "regenerative" agricultural practices.

### **Stroud Water Research Center Tour**

Participants will tour the Stroud campus, including their lab and LEED Platinum green building, and get a glimpse into the projects taking place there. The building, which includes a stormwater and wetland wastewater treatment system, is designed to use and treat water in a way that more closely mimics nature, leaving a smaller overall environmental footprint, better protecting the adjoining White Clay Creek, and acting as both a teaching vehicle and a replicable model for others to follow.

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[Visit Stroud Water Research Center to Learn More](#)

## Pennsylvania's Dirt, Gravel, and Low Volume Road Maintenance Program



*Photos courtesy of the Penn State Center for Dirt and Gravel Road Studies*

Sediment is the largest pollutant by volume to the waters of the Commonwealth of Pennsylvania and the state's 20,000 miles of publicly owned unpaved roads are a prime example of non-point source pollution. The purpose of the Dirt, Gravel, and Low Volume Road Maintenance Program – DGLVR for short – is to create a better public road system with a reduced environmental impact through environmentally sensitive road maintenance practices that reduce the impact of road runoff and sediment to local streams, while reducing long term road maintenance costs.

### **Session: Pennsylvania's Dirt, Gravel, and Low Volume Road Maintenance Program**

Conservation districts running a road program? That's right! Conservation districts in Pennsylvania administer \$28 million annually through the state's DGLVR Program. The program provides local road-owning entities with grant funding to complete projects with a focus on environmental improvements to their roads. Improvements include improving ditch stability, adding crosspipes, filling entrenched roads, improving road base, managing wetlands and stream crossings, road surfacing, and much more. During this session, program representatives from both the state and local level will provide an overview of the program and highlight recently completed projects.

### **Dirt, Gravel, and Low Volume Road Maintenance Program Tour**

Pennsylvania's Dirt, Gravel, and Low Volume Road Maintenance Program provides \$28 million annually in grant funding to local road-owning entities to complete projects on their roads that focus on environmental improvements. Led by the Lancaster County Conservation District, this tour will visit several completed and upcoming local project sites to discuss some of the program's principles and practices. In addition to learning about agricultural impacts on roads, stream crossing replacements, streambank stabilization, and road drainage improvements, participants will see impacts from several sites that have not been funded and visit two projects that promote infiltration in an urban setting using rain gardens, pervious street parking, and an infiltration basin installed under an alley in the City of Lancaster.

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[Visit the Penn State Center for Dirt and Gravel Road Studies to learn more](#)

## Stormwater Management and Healthy Watersheds



*Photo by PACD*

### **Session: Stormwater Management and Healthy Watersheds**

Presented by LandStudies, this session will use several case studies to showcase regional examples of pollutant removal and flood reduction, with a common theme of restoring and manipulating the floodplain as an alternative solution to today's regulatory and environmental challenges. Issues to be addressed will include flooding, stormwater, MS4, and Total Maximum Daily Load (TMDL). Attendees will learn how a project or plan can provide or protect community assets (infrastructure), improve and build resilience into the local economy (flood reduction), and improve or protect our natural resource assets (pollutant removal). There will be a special focus on the concept of Economic Ecology, which maximizes both economic and environmental returns to solve water issues, such as pollutant removal and flood reduction, at a regional scale.

### **Stormwater Management and Healthy Watersheds Tour**

LandStudies has developed a comprehensive tour of green infrastructure projects in the Lancaster County region, which focuses on using real life examples for a hands-on learning experience. The hands-on educational tour showcases select green infrastructure sites with up to 15 years of performance history, as well as cost-effective Best Management Practices (BMPs) that stack environmental and regulatory benefits. Tour sites demonstrate: alternative stormwater management techniques, groundwater infiltration in karst geology, nutrient and sediment pollution reduction, water quality improvement to meet municipal MS4 and TMDL requirements, pollution reductions in accordance with the Chesapeake Bay Watershed Implementation Plan, and increased stormwater attenuation to potentially reduce localized peak flooding.

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[Visit LandStudies to learn more](#)

## Conservation and Soil Health in Agriculture

The USDA Natural Resources Conservation Service has this to say about soil health: Soil is a living and life-giving natural resource. As world population and food production demands rise, keeping our soil healthy and productive is of paramount importance. By farming using soil health principles and systems that include no-till, cover cropping and diverse rotations, more and more farmers are actually increasing their soil's organic matter and improving microbial activity. As a result, farmers are sequestering more carbon, increasing water infiltration, improving wildlife and pollinator habitat—all while harvesting better profits and often better yields.<sup>1</sup>



USDA-NRCS Photo by Ron Nichols (Edited: Cropped) ([View on Flickr](#))

### Session: Conservation and Soil Health in Agriculture

Participants will learn about general soil health principles such as evaluating soil properties like soil structure, aggregate stability, infiltration and the role of conservation practices such as cover cropping and no-till in a cropping system. The next day's farm tour will reinforce concepts presented during lectures and provide the opportunity to view soil health properties in the field.

### Conservation and Soil Health Ag Tour

This tour will take participants to the family owned and operated Brubaker Farms, located near Mount Joy in Lancaster County. In addition to learning about and viewing soil health properties in the field, attendees will have the opportunity to see other steps the Brubakers have taken to ensure the farm is environmentally compliant and economically sustainable, including their manure digester, which converts cow manure into energy to power homes.

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[Visit USDA NRCS to Learn More about Soil Health](#)

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<sup>1</sup> <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/soils/health/>