



## POSTER TITLE GUIDE

### Poster Session

The Villanova Room 12:45pm (or after lunch) on Wednesday

#### **Modeling the compound effects of subsurface infrastructure and compacted soil on urban flooding**

M. Aches<sup>1</sup>, Y. Joshi<sup>1</sup>, Z. Mijic<sup>1</sup>, S. E. Clark<sup>1</sup>

#### **Three Co-Located GSI and Their Response to Large Storms**

A. Amur<sup>1</sup>, M. McGauley<sup>1</sup>, K. Myers<sup>1</sup>, B. Cary<sup>1</sup>, B. Wadzuk<sup>1</sup>  
Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

#### **Soil and Landscape Restoration to Prevent Water Quality Degradation: Lessons Learned from a Legal Settlement for Grid-Scale Solar**

E. Bast<sup>1</sup>, L. Hansplant<sup>2</sup>, M. Adams<sup>3</sup>  
Staff Attorney, PennFuture<sup>1</sup>; Landscape Architect and Founding Principal, Studio Sustena<sup>2</sup>; Water Resources Engineer, Meliora<sup>3</sup>

#### **A Qualitative Review of Green Stormwater Infrastructure (GSI) Practices: Opportunities for Least Developing Countries**

B. Bereded<sup>1</sup>, M. Taylor<sup>1</sup>, M. Rahman<sup>1</sup>, R. G. Traver<sup>1</sup>, V. Smith<sup>1</sup>  
Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

#### **Air Mass Partitioning of Historical Weather Station Data to Incorporate Meteorological Principles into Water Resources Engineering**

M. J. Burns<sup>1</sup>, K. D. Good<sup>1</sup>  
Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

#### **Examining the Performance and Operations of GSI Bioinfiltration Systems in Managing Highway Storm Runoff in an Urban Area - A Case Study of PennDOT I-95 Sites**

N. A. S. Dennis<sup>1</sup>, S. Kharel<sup>1</sup>, E. McCormack<sup>1</sup>, M. Palermo<sup>1</sup>, G. Zarembo<sup>1</sup>, A. J. Hess<sup>1</sup>, B. M. Wadzuk<sup>1</sup>, R. G. Traver<sup>1</sup>  
Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

**Understanding Urbanization's Impact: Flood Hydrograph Analysis in Darby-Cobbs Creek Watershed, Eastwick Philadelphia**

M. Eason<sup>1</sup>, M. Parvin<sup>1</sup>, N. A. Dennis<sup>1</sup>

Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

**Using Historical Stormwater Control Measure Performance Data to Predict Behavior Under Climate Change**

K. Eimer<sup>1</sup>, S. E. Clark<sup>1</sup>

Department of Civil, Construction, and Environmental Engineering, Penn State Harrisburg<sup>1</sup>

**Stakeholder-Driven Resiliency Planning in East Falls and Manayunk**

M. Feldman<sup>1</sup>, G. McCauley<sup>2</sup>, K. Flynn<sup>3</sup>, N. Schmidt<sup>3</sup>

East Falls Development Corporation<sup>1</sup>; Manayunk Development Corporation<sup>2</sup>; AKRF<sup>3</sup>

**Case Study: Design and Construction of Seven Rain Gardens in South Philadelphia: Lessons Learned from the 24th Street Greening Improvements Project**

J. Gandara<sup>1</sup>, J. Brennan<sup>2</sup>, A. Anderson<sup>2</sup>

Philadelphia Water Department<sup>1</sup>; Hazen and Sawyer, Philadelphia, PA<sup>2</sup>

**Assessing the Efficiency of Different Net Mesh Size for Microplastic Retrieval of Marine Debris in the Chesapeake Bay**

B. Iskander<sup>1</sup>, S. E. Clark<sup>1</sup>, C. Rios<sup>2</sup>, Y. Xie<sup>1</sup>

Department of Civil, Construction, and Environmental Engineering, Penn State Harrisburg<sup>1</sup>

Department of Communications and Humanities, School of Humanities, Penn State Harrisburg<sup>2</sup>

**Hybrid Solutions for DOT applications for Proactive Road Flooding Alerts**

C. Kozora<sup>1</sup>

OTT Hydromet<sup>1</sup>

**Holistic Flood Management and Modeling Under Climate Impacts**

L. Liang<sup>1</sup>, E. Hersh<sup>1</sup>, A. Verdin<sup>1</sup>, M. Bartlett<sup>1</sup>

Stantec Consulting Services Inc.<sup>1</sup>

**The Importance of Plasticity in GSI Media Selection and Design**

C. Marino<sup>1</sup>, K. Sample-Lord<sup>1</sup>, V. Smith<sup>1</sup>

Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

**Quantifying the Performance of a GSI Network Individually Versus as a Cumulative Series**

E. McCormack<sup>1</sup>, G. Zaremba<sup>1</sup>, R. Traver<sup>1</sup>

Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

**Determining how Future Rainfall Years Could be Classified using Extensive Observations**

M. McGauley<sup>1</sup>, B. Wadzuk<sup>1</sup>

Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>



**Bioretention Design and Plant Choices to Meet Traditional Water Management and Ecological Objectives**

D. Myers<sup>1</sup>, B. Wadzuk<sup>1</sup>, J. Caplan<sup>2</sup>, A. Hess<sup>1</sup>

Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>; Tyler School of Art and Architecture, Temple University<sup>2</sup>

**Examining Microplastics Occurrence at GSI Sites**

B. Neumann<sup>1</sup>, V. Smith<sup>1</sup>, E. Forgione<sup>1</sup>, K. Good<sup>1</sup>

Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

**How to Build a Digital Communications Toolkit for Stormwater Management**

D. Patterson Gear<sup>1</sup>

Princeton Hydro<sup>1</sup>

**Gray to Green: Roadway Redevelopment and Water Quality**

C. L. Reichenbach<sup>1</sup>, P. J. Singhofen<sup>1</sup>

Streamline Technologies, Inc.<sup>1</sup>

**Ultra-urban, green stormwater infrastructure: a community approach to creating sustainable neighborhoods**

M. Rozanski<sup>1</sup>

Baltimore Social Environmental Collaborative at Johns Hopkins University<sup>1</sup>

**An Analysis of the Thermal Effects of Villanova's Constructed Stormwater Wetland**

J. Rybnik<sup>1</sup>, A. Hess<sup>1</sup>, R. Traver<sup>1</sup>

Dept. of Civil. and Env. Engineering, Villanova University<sup>1</sup>

**The Importance of Pretreatment**

S. Shiffer, PE<sup>1</sup>

Ferguson Waterworks<sup>1</sup>

**How Penn State University Master Watershed Stewards Can Help Municipalities and EACs Inspect Inventory, Assess, and Fix Their Stormwater BMPs**

W. Snook<sup>1</sup>

PSU Master Watershed Stewards<sup>1</sup>

**Flood Alert System for Grafius Run – Protecting Lives and Property in Williamsport, Pennsylvania**

C. Stoudt<sup>1</sup>, K. Hayes<sup>1</sup>, G. Motlagh<sup>1</sup>, T. Weathers<sup>1</sup>, S. Livermore<sup>2</sup>

WSP USA Earth and Environment, Inc., Blue Bell, PA<sup>1</sup>; City of Williamsport, Williamsport, PA<sup>2</sup>



## **Understanding and Managing Impacts of Solar Farms on Landscape Hydrology: Insights from Field Monitoring and Modeling**

R. Yavari Bajebaj<sup>1</sup>, L.E. McPhillips<sup>1,2</sup>, Cibin Raj<sup>1,2</sup>, Arash Massoudieh<sup>3</sup>

Department of Civil and Environmental Engineering, Penn State University- University Park, PA<sup>1</sup>

Department of Agricultural and Biological Engineering, Penn State University- University Park, PA<sup>2</sup>

Department of Civil Engineering, The Catholic University of America, Washington, DC<sup>3</sup>

## **Equity-Driven Strategies in Community-Based Public-Private Partnerships (CBP3s) for Green Stormwater Infrastructure Development**

B. M. Zailani<sup>1</sup>, J. G. Hunter<sup>1</sup>

Department of Civil and Environmental Engineering, Morgan State University, Baltimore, Maryland<sup>1</sup>



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