



Rain garden just after planting.

### ***A bit about stormwater ...***

Stormwater runoff is impacting our streams and watersheds, causing water quality decline, streambank erosion, flash flooding, degrading fish habitat, & reducing groundwater recharge. With only 10% of land covered by impervious surfaces such as parking lots & roofs, significant impairment of waterways occurs. The focus on water quality has deepened with better working and more cost effective systems and practices being used.

Once established.



## **REGISTRATION FORM**

**COST \$12.00**

(Covers morning refreshments & lunch)

Name \_\_\_\_\_

Business/Org. \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Day Phone \_\_\_\_\_

Email \_\_\_\_\_

**Checks payable to & mailed to:**  
**Adams County Conservation District**  
**670 Old Harrisburg Road, Suite 201**  
**Gettysburg, PA 17325**

Telephone: 717-334-0636

Email: rryan@adamscounty.us



**Slow it down.**  
**Spread it out.**  
**Soak it in!**



**ADAMS COUNTY  
 CONSERVATION DISTRICT**

**in partnership with Penn State Cooperative  
 Extension & the Adams County Office of  
 Planning & Development**

*welcomes you to*

## ***MANAGING STORMWATER***

*a workshop to protect water quality, streams,  
 & communities.*

**WHEN:** November 15, 2013

**8:30 AM – 4:00 PM**

**WHERE:** Adams County Agricultural  
 & Natural Resources Center

**670 Old Harrisburg Road  
 Gettysburg, PA (Across from ACNB)**

**COST: \$12.00**

**Registration Deadline: November 8<sup>th</sup>**

### **Program Sponsors:**

- ♦ **Buchart Horn, Inc.**
- ♦ **Pennsylvania Association of  
 Conservation Districts**
- ♦ **Watershed Alliance of  
 Adams County**

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 Pennsylvania Association of Conservation Districts, Inc. through a  
 grant from the Pennsylvania Department of Environmental Protection  
 under Section 319 of the Clean Water Act, administered by the U.S.  
 Environmental Protection Agency.*

# MANAGING STORMWATER WORKSHOP AGENDA

November 15, 2013

- 8:30 Registration & light refreshments
- 8:55 Introductions
- 9:00 Stormwater issues/Impacts on water quality and flooding  
– Vincent Cotrone-PSU Extension
- 9:30 Sustainable design and stormwater control measures for urban/suburban stormwater- Lessons learned  
– Dr. Robert Traver-Villanova Univ.
- 10:30 **BREAK**
- 10:45 Rain gardens, amended soils and evapotranspiration -Dr. Traver
- 11:30 Cost effective, green stormwater management – Vincent Cotrone
- Noon **LUNCH (45 minutes)**
- 1:00 Assessing Adams County stormwater practices (LID talk) – ACOPD
- 1:30 ACT 167 and The Simplified Approach (pros & cons) – Conservation District
- 2:15 **BREAK**
- 2:30 MS4 panel discussion
- 3:30 Meeting adjourned. Optional tour of stormwater BMPS on site



**Professor Traver** is a Professor in the Department of Civil and Environmental Engineering at Villanova University, and Director of both Center for the Advancement of Sustainability in Engineering, and the Villanova Urban Stormwater Partnership. He teaches courses in surface water hydrology, open channel hydraulics, and urban storm water management. Dr. Traver's introduction to engineering practice was during the initial period of implementation of stormwater management in Pennsylvania. He incorporates this experience in his continuing research and in the classroom. He has conducted research on topics that include modeling of stream hydraulics, urban hydrology, water quality, and sustainable stormwater management. He initiated the Stormwater Best Management Practice Demonstration and Research Park on the Villanova Campus. Dr. Traver served on ASCE's External Review Panel (ERP) of the Corps investigation of Hurricane Katrina, and was a member of the National Academies Committee entitled Reducing Stormwater Discharge Contributions to Water Pollution. Dr. Traver received his BSCE degree from the Virginia Military Institute, his MCE from Villanova, and his Ph.D. from The Pennsylvania State University.

**Vincent Cotrone** is a Penn State Extension Urban Forester. He has developed educational programs and presented throughout Pennsylvania on topics ranging from tree species selection, planting and proper tree pruning practices to establishing shade tree commission, inventorying trees, developing shade tree ordinances, and managing stormwater. He has presented at national conferences including the 1996 National Arbor Day Foundation's Tree City USA Conference, the 1999 National Urban Forests Conference in Seattle, the 2008 and the 2010 Partners in Community Forestry Conference. Upon completion of his bachelor's degree from SUNY College of Environmental Science and Forestry Vinnie found himself employed by the City of New York as an urban forester. Since 1991 he has worked for Penn State University as a regional urban forester and educator covering 18 counties in Northeastern Pennsylvania. He has worked with many municipalities and organizations to develop community forestry programs and the green industry providing technical assistance and educational programming. He has worked on green infrastructure projects to manage urban stormwater. Mr. Cotrone has been a member of the International Society of Arboriculture since 1987 and an ISA certified arborist since 1993. He was awarded the Northeastern Pennsylvania Environmental Partnership Award for forging environmental partnerships and bringing protection and stewardship to

Northeastern Pennsylvania environmental resources. In 1996, he received the Urban & Community Forestry Agency Achievement Award for his work in Pennsylvania. In 2009, the Urban Forestry Program received the Extension Director's Team Award for their work across the Commonwealth.



New garden shed at the Ag Center showing two different stormwater BMPs, the green roof and a rain barrel.

## Who should attend?

- Consultants
- Municipalities
- Developers



**Certificates of Attendance will be issued for Engineer PDH Credits.**