

GCSA News Bulletin – March 2014

INCOG NOTE: The following items have been collected from recent emails and announcements with changes to format, not content. Some have been abbreviated or images removed.



1. LID Design Competition and Research Symposium Update and Agenda

GREAT PLAINS LOW IMPACT DEVELOPMENT RESEARCH AND INNOVATION SYMPOSIUM

April 2-4, 2014 at the Hard Rock Hotel and Casino in Tulsa, OK

The Green Country Sustainability Forum is excited to announce the full agenda for the first Great Plains Low Impact Development (LID) Research and Innovation Symposium. The Symposium workshops will cover a variety of topics related to LID, featuring Seth Brown, Stormwater Program and Policy Director, from the Water Environment Federation as the keynote speaker, Susanna Perea, Green Infrastructure Coordinator for EPA Region 6, and a variety of other presenters representing 11 different states. There will also be vendor exhibits for attendees to view, a student poster contest, a student design contest, and a golf and poker tournament for attendees to participate in during the conference.

The cost for the basic Symposium registration is \$125. The cost for undergraduate or graduate students is \$60.

The Symposium will be held in conjunction with the Finalist Design Presentations and Awards Gala for the LID Design Competition to be held on April 3rd. Contest winners will receive \$10,000. The cost for the gala is \$30, or the gala ticket is included with the full-day registration of \$125.

There are still sponsorship opportunities available. Please visit the following website for more information: <http://lidcompetition.okstate.edu/sponsorship-information>

Detailed Agenda: <http://lidcompetition.okstate.edu/great-plains-lid-conference/tentative-agenda>

Registration: <http://lidcompetition.okstate.edu/symposium-registration>

Symposium Agenda Highlights:

Wednesday, April 2nd: Half-day Pre-Symposium Workshop on Green Roof Design by Green Roofs for Healthy Cities, *Poker Tournament in the evening. *Winner of the Poker Tournament receives 2 tickets to the Merle Haggard concert, playing on Thursday, April 3rd at 8:00pm at the Hard Rock Casino's Joint!

Thursday, April 3rd:

8:30-10:00am Session 1: Joint Policy, Applied, and Research Session

- **8:30: LID Update from EPA Region 6**
- **9:00: Stormwater Park Case Studies for LID**
- **9:30: The Evolution of LID Research: Validation, Optimization, Implementation**

10:30-11:30am Session 2: Concurrent Applied, Policy and Research Tracks

- **Applied Track**

- **10:30:** [Tulsa Area Rain Garden Project: Successes and Lessons Learned](#)
- **11:00:** [Designing the Natural City; Consolidated LID Approaches for Use in Transitioning Urban Districts](#)
- **Policy Track**
 - **10:30:** [Impervious Cover Impacts to Surface Waters, Disconnecting Pollutant Loads through LID Planning and Implementation](#)
 - **11:00:** [Low Impact Development From A Community Viewpoint](#)
- **Research Track**
 - **10:30:** [Ten Years Later—A Retrospective and Lessons Learned from the Burnsville Rainwater Garden Retrofit Project](#)
 - **11:00:** [Hydrologic and Plant Performance of Residential Rain Gardens in Lincoln, Nebraska](#)

11:30am-1:00pm Lunch with Keynote Speaker [Seth Brown from the Water Environment Federation](#)

1:00-2:30pm Session 3: Concurrent Applied, Policy, and Research Tracks

- **Applied Track**
 - **1:00:** [The Amery Regional Medical Center--Promoting Human Health and Wellness through an Ecologically Enhancing and Engaging Environment](#)
 - **1:30:** [From Vacant Lots to Emerald Isles: Transform Urban Vacant Land through Public-Private Collaboration and Innovative LID Practices](#)
 - **2:00:** [Innovative, Effective LID Applications that also include Multiple Social Benefits: The 37th Avenue Greenway and the Tamarack Bog Rooftop](#)
- **Policy Track**
 - **1:00:** **TBA**, TBA
 - **1:30:** [Overcoming Roadblocks to Establishing Rain Gardens in Tulsa](#)
 - **2:00:** **Stormwater Permitting and LID: Ask the Regulator Panel Discussion**
- **Research Track**
 - **1:00:** [Beyond hydrology: quantifying additional ecosystem services provided by LID](#)
 - **1:30:** [Optimization of Bioretention Soil Mix for Nutrient Removal](#)
 - **2:00:** [Designing with Nature – Compost BMP Designs for Green Infrastructure and Low Impact Development](#)

3:00-4:00pm Session 4: Applied, How-to, and Research Tracks

- **Applied Track**
 - **3:00:** **Student Design Competition Introduction: The Owasso Sports Park**
 - **3:15:** **Student Design Competition Presentations**
- **How-to Track**
 - **3:00:** **Construction Techniques and Tips for Large-scale Bioretention Cells**
 - **3:20:** [Establishing dryland plants in semi-arid rain gardens; Design, install, and maintenance](#)
 - **3:40:** [The Role of Urban Trees in Stormwater Management and How to Make Them Thrive](#)
- **Research Briefs**
 - **3:00:** **Nutrients in Greenroof Runoff**
 - **3:15:** **Hydrologic Characterization of Bioretention in Lexington, Kentucky**

- **3:30: *Willingness to Pay for Improved Stream Quality in the Illinois River***
- **3:45: *The Research Greenroof at the National Weather Center***

4:00-7:30pm Green Country LID Design Competition Gala and Symposium Reception and Awards Ceremony with Special Guest Master of Ceremonies Travis Meyer from KOTV, News on 6 in Tulsa

Friday, April 4th: Golf Tournament at the Cherokee Hills Golf Course at the Hard Rock (\$50 for 18 holes)

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2. OSU / OCC Three-Part Video Series on Natural Stream Restoration

FROM JASON VOGEL: Announcing the release of a three-part video series and accompanying fact sheet on natural stream restoration:

Oklahoma State University, in cooperation with the Oklahoma Conservation Commission, Auburn University, and Jennings Environmental, Stantec, North State Environmental, and others, has recently completed a three-part video series on Natural Stream Restoration. The videos can be found at these links:

Part I: <http://www.youtube.com/watch?v=CsayzeejVzY>

Part II: <http://www.youtube.com/watch?v=DsRkT8AegwY>

Part III: <http://www.youtube.com/watch?v=h-0NIG508FA>

The educational objective of the video series is to educate viewers with entry-level to mid-level experience in natural stream restoration about the background, principles, and techniques of natural stream restoration. Although other parts of the country may be somewhat familiar with natural stream restoration, the central US, including Oklahoma, is often unfamiliar with and/or skeptical of these techniques. This video series and associated extension program provides education of this topic to overcome these hurdles towards implementation. The ultimate objective of this work is more natural stream systems that provide the basic hydrologic, ecologic, and societal functions that healthy streams provide.

The Oklahoma Cooperative Extension Service has also developed a fact sheet in conjunction with these videos, which can be downloaded here:

<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-9223/BAE-1526web.pdf>

The video series and fact sheet are also linked through the OSU Natural Stream Restoration website (<http://lid.okstate.edu/natural-stream-restoration>), which provides many links to

explore for further information. Please feel free to provide us compliments or comments so we can continue to improve these educational resources.

3. Free Webinar on Improving Water Quality With Pervious Pavement



[Register Today!](#)

FREE WEBINAR!

Improving Water Quality & Quantity with Pervious Pavement

Speakers: [Glenn Herold](#) and [Chuck Taylor](#)

Wednesday, March 19th @ 11am PDT / 2pm EDT

Earn 0.1 CEU / 1 PDH Credits

Effective runoff control starts with great design. Join [Glenn Herold](#) and [Chuck Taylor](#) for a FREE live and on-demand webinar exploring how to reduce urban stormwater runoff and improve water quality through the effective design and maintenance of permeable interlocking concrete pavement (PICP) systems.

This webinar will outline the key components, specifications, and best management practices in PICP system design, construction, and maintenance, as well as the main differences between the primary five types of pervious pavement surfaces. We'll also explore how to modify your system design to accommodate changes based on site soil conditions.

Additionally, we'll discuss the adverse environmental effects of urban runoff and how to counter these with a PICP system. In terms of *reducing runoff quantity*, we'll demonstrate how to develop a site specific Curve Number based on the system design for the application of traditional modeling methods. In terms of *improving water quality*, we'll outline the use of different treatment mechanisms that are both intrinsic to, and supplementary of, permeable pavement. Finally, Herold and Taylor will outline best practices for preventative and remedial maintenance (including costs) to ensure the successful long-term performance of your PICP system.

Learning Objectives

- Learn about the five primary types of pervious pavement surfaces and the associated pros and cons
- Learn how pervious pavement system design can be modified to accommodate any native soil type and climatic condition

- Learn how to develop a site specific Curve Number based on the system design to enable use of traditional modeling methods
- Learn about recommended preventative and remedial maintenance requirements to ensure long term performance



4. LID Symposium Outreach

FROM LID DESIGN COMPETITION AND SYMPOSIUM PLANNERS: It is time for **all hands on deck** and for everyone to help with the final push for this event. This has the highest potential for long-lasting success that we have ever had in Oklahoma. Over a thousand hours have been spent to get us to this point so this is when a little help from everyone will lead us to success. So, what do we need to do?

1. **Register for the Symposium/Awards Gala** – awards gala is free with symposium registration: <http://lidcompetition.okstate.edu/draft-rules/symposium-registration>
2. **Communicate Personally with your contacts to be a vendor and/or attend the event**, it might take an email with a follow up phone call.

5. EPA Webcast on Public/Private Financing Partnerships – March 18th

USEPA's Faster-Cheaper-Greener Webcast Series is pleased to announce its next event:

Financing Perspectives on Using Public Private Partnerships (P3s) for Green Infrastructure, Wealth, and Community Resiliency

**Tuesday, March 18, 2014
1:00pm - 3:00pm Eastern Time**

Registration Open Now!

<http://mp118885.cdn.mediaplatform.com/118885/ml/mp/4000/5345/5417/33755/Lobby/default.htm>

Financing experts from the White House and successful Global and Local Lending Institutions have been invited to share their perspectives on using P3s for "faster, cheaper, greener" stormwater management and community sustainability. These national champions and practitioners will provide an overview of options, benefits and "how-to's" for financing affordable stormwater management through the use of innovative P3 approaches that achieve greener infrastructure, community revitalization, economic development, equitable job growth, and enhanced local quality of life.

The Water Environment Foundation is co-sponsoring this webcast and will provide 2.0 Professional Development Hours (PDHs) for this webcast - the certificate will be sent via email

after the event. Please check with your state accreditation agency to determine if you qualify. Questions about PDHs should be sent to webcasts@wef.org.

Moderated by Dominique Lueckenhoff, Deputy Director, Water Protection Division, USEPA Region 3. Introductory remarks by Nancy Stoner, Acting Assistant Administrator, USEPA Office of Water

Invited Guest Speakers

- **David Wilkinson**, Senior Policy Advisor, Social Finance & Innovation, Executive Office of the President
- **John Germain**, Director, Barclays Capital
- **Anthony S. "Tony" Freedman**, Partner, Holland & Knight
- **Jason Washington**, Senior Vice President, Community Wealth Building Initiative, City First Enterprises
- **Matt Millea**, Deputy County Executive of Physical Services, Onondaga County, NY, (Vice Chair of WEF Government Affairs Committee, former NY State SRF Administrator)

Questions? Please contact Amber Siegel (contractor) at amber.siegel@tetrattech.com

Co-Sponsored by WEF - the Water Environment Federation

6. Free Online Rain Garden Design Series (Part 1)

UPSTREAM
matters

Committed to preserving, protecting and restoring
the land and water of the Illinois River Watershed

Watershed Landscape: Rain Garden Design – Part I

by BECKY ROARK on Mar 11, 2014 • 8:50 am

Rain Garden Design Series: Part One, Site Selection

Installing a rain garden on your property can be a fun, rewarding experience that will yield benefits for your landscape, community and our watershed! Rain gardens are intended to capture and filter stormwater runoff from impervious surfaces, such as rooftops, roads and parking lots. They are a landscape with a purpose. With good planning, you can have a beautiful addition to your property and help improve and protect our local streams, rivers and lakes.

The wonderful thing about rain gardens is that they can come in all shapes and sizes, and can be as simple or engineered as your property calls for. For the purpose of this series, we will be covering a simple design of a rain garden. This is a three-part series that will cover Site Selection, Design Calculations and Installation. Let's get started!

http://upstreammatters.com/watershed-landscape-rain-garden-design-part-i/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+UpstreamMatters+%28Upstream+Matters%29

7. USDOT Announces \$600 Million Available for Capital Projects

The U.S. Department of Transportation recently announced that the Transportation Investment Generating Economic Recovery (TIGER Discretionary Grant program) has up to \$600 million available for capital projects related to highways, bridges, public transportation, rail, ports, and intermodal projects. A primary selection criterion specifically mentions addressing stormwater through natural means, avoiding impacts to water quality, and providing benefits like groundwater recharge, brownfield redevelopment, and stormwater mitigation including green infrastructure. Of this funding, \$35 million is available for project and regional-level planning that include factors like stormwater and future risks and vulnerabilities like extreme weather and climate change. Eligible applicants are State, local, and tribal governments, transit agencies, port authorities, metropolitan planning organizations, other political subdivisions of State or local governments, and multi-State or multi-jurisdictional groups applying through a lead applicant. TIGER applications are due **April 28, 2014**. Additional details: www.dot.gov/tiger

8. EPA Guidance on Green Infrastructure and Community Planning for CSOs

EPA Releases Planning Resource to Help Communities Manage Stormwater and Wastewater with Green Infrastructure



EPA has released "[*Greening CSO Plans: Planning and Modeling Green Infrastructure for Combined Sewer Overflow \(CSO\) Control*](#)" to provide municipalities and sewer authorities with tools to help quantify green infrastructure contributions to a CSO control plan. Communities with combined sewers often view green infrastructure as an attractive way to reduce stormwater flows going into their sewer system, thus helping to reduce capital and operational costs at publicly owned treatment works. *Greening CSO Plans* will help communities make cost-effective decisions to maximize water quality benefits. This resource explains how to use modeling tools such as EPA's Storm Water Management Model (SWMM) to

optimize different combinations of gray and green infrastructure to reduce both sewer overflow volume and number of overflow events.

For more information on CSO plans and remedies, click [here](#).



9. INCOG's April 16th GCSA Employee Training on QA, Sampling and Field Safety

EMPLOYEE TRAINING AGENDA AND WORKSHOP INFORMATION QUALITY ASSURANCE, SAMPLING AND FIELD SAFETY

April 16, 2014, Tulsa Technology Center, Broken Arrow Campus

INCOG will host a one-day employee training workshop for its Phase II stormwater permittee GCSA members. The Workshop will be held **April 16, 2014 from 9:00 AM to 4:00 PM**. The purpose of the Workshop is to provide GCSA members with technical information related to their inspection and enforcement programs. The workshop venue will be **Room F215 at the Tulsa Technology Center-Broken Arrow Campus**.

The program will start with an overview of the data quality and inspection requirements in OKR04. This will be followed by methods for conducting Dry Weather Field Screening and Source Tracking inspections. The workshop will conclude with presentations about data quality and data management and safety considerations in the field. A draft agenda is presented below.

A course booklet of the presentations and handouts will be provided to each attendee. This is another employee training workshop provided to GCSA members with **no registration fee**. Lunch will be on your own. Light snacks for the two breaks will be provided. Training Certificates will be provided, along with PDH Certificates for engineers. We will also have ODEQ forms for the 4-hour renewal training for ODEQ licensed operators. **Please RSVP with the names or number of all who will attend by April 10th** so that the correct number of booklets can be prepared.



TIME	TOPIC	SPEAKER
9:00 – 9:15	Introductions & Announcements.	R. Smith
9:15 – 9:45	OKR04 Requirements for: QA, Inspections and Recordkeeping.	R. Smith
9:45 – 10:30	Dry Weather Field Screen (DWFS) Inspection Methods.	V. Seaman
10:30 – 10:45	BREAK – 10 minutes	
10:45 – 11:30	Source Tracking Inspection Methods.	V. Seaman
11:30 – 1:00	LUNCH – 1 hour 30 minutes	
1:00 – 1:30	Levels of QA, Certifications, Credentials, Defending Your Data.	R. Smith
1:30 – 2:00	Lab Reports, Field Forms, Labels, Chain of Custody.	V. Seaman
2:00 – 2:15	BREAK – 15 minutes	
2:15 – 3:15	Test Kits, Lab Analyses, Written Procedures, Data Quality Objectives.	V. Seaman
3:15 – 3:50	Field Safety, Private Property Issues, Credentials.	V. Seaman
3:50 – 4:00	Questions and Certificates	R. Smith

10. MSNBC News: States Move to Limit EPA’s Clean Water Authority

States move to limit EPA’s clean water authority

02/27/14 07:05 AM—Updated 02/27/14 03:00 PM

By [Ned Resnikoff](#)

Florida, Texas and Alaska are nowhere near the Chesapeake Bay. But that hasn’t stopped those states from trying to intervene in the EPA’s cleanup of the mid-Atlantic estuary.

Earlier this month, the attorneys general from those states and 18 others filed an [amicus brief](#) [PDF] on behalf of the American Farm Bureau Federation, which is suing to limit the extent of the Environmental Protection Agency’s Chesapeake Bay cleanup effort. The Farm Bureau argues that the EPA exceeded its authority in regulating the amount of pollutants flowing into the bay, which the federal agency says is [severely contaminated](#).

At question is [how far the EPA can go](#) in setting limits to “the maximum amount of pollution a body of water can receive and still meet state water quality standards.” According to the Farm Bureau, the EPA exceeded its legal authority by trying to determine how much individual polluters would have to cut back, instead of just setting an overall so-called “Total Maximum Daily Load” and allowing the states to determine how it would be parceled out.

“These are uniquely local decisions that should be made by local governments,” said Farm Bureau President Bob Stallman in a [statement](#). “That is why this power is specifically withheld from EPA in the Clean Water Act.”

The amicus brief, which was signed by 18 Republican attorneys general and three Democrats, seconds this line of argument. Although all but one of the 21 signatories hail from states which do not border the Chesapeake Bay, they say that the case has national implications. A legal regime which gives the EPA the power to closely regulate pollution in the bay could give it equivalent power in contaminated bodies of water across the United States.

“If this TMDL is left to stand, other watersheds ... could be next,” according to the amicus brief. Eight counties from states bordering the bay also filed [a separate amicus brief](#).

Full Article at: <http://www.msnbc.com/msnbc/states-rights-or-consequence-free-pollution>

11. EPA and NAFSMA Sign MOU on LID and Green Infrastructure



On Feb. 5, the U.S. Environmental Protection Agency and the National Association of Flood and Stormwater Management Agencies signed a memorandum of understanding (MOU) that outlined how the two organizations could work together to advance the implementation of low impact development (LID) and green infrastructure. LID and green infrastructure are two techniques, among many, that can build more resilient and sustainable communities. The MOU

includes commitments from both organizations to collaborate on encouraging and supporting the use of various approaches to help promote resiliency and assist in improving water quality, and to share available data establishing low-impact development and green infrastructure operation and maintenance costs in various environments, ecological features and climates.

Website Link at: <http://www.estormwater.com/epa-signs-mou-advance-lid-green-infrastructure?eid=221154576&bid=830174>