Speaker Biographies for San Antonio Workshop on Managing Wet Weather with Green Infrastructure

Speakers:

1. **Abby Hall** is a Policy Analyst in EPA's Community, Development and Environment Division. She works on the intersections between land use and water quality. Her projects focus on municipaland state-level policies that support green infrastructure and smart growth.

Abstracts:

Managing Wet Weather with Green Infrastructure: Introduction to green infrastructure; description of EPA's program and support for green infrastructure, discuss use of green infrastructure in wet weather management. Incentives: Summaries and case studies of local incentives that communities have used to encourage the use of green infrastructure approaches codes and ordinances: Evaluating codes & ordinances, and eliminating local policies that pose barriers to 'green' and facilitating 'green' in codes & ordinances. This session includes a demonstration of how to use the audit tool.

Abby Hall U.S. Environmental Protection Agency Office of Policy, Economics and Innovation Phone: (202) 566-2086 1200 Pennsylvania Avenue, NW Mail Code 1807T Washington, DC 20460 Hall.Abby@epamail.epa.gov

Bibliography
General Green Infrastructure website:
http://cfpub.epa.gov/npdes/home.cfm?program_id=298
Incentive Table:
http://npdes.tetratech-ffx.com/Green%20Infrastructure%20Incentives.pdf

Protecting Water Quality Resources with Higher Density Development: http://www.epa.gov/livablecommunities/water_density.htm

2. **Steve Wise** joined the Center for Neighborhood Technology (CNT) in 2006 as manager of its natural resources program, exploring and demonstrating the multiple ecological, social and economic values of green infrastructure. Since its founding in 1978, CNT has been a leader in urban sustainability solutions, combining rigorous research with applied community programs and policy. Steve brings nearly 20 years experience in environmental policy and practice with a focus on clean water and ecosystem approaches. He returned to Chicago after a dozen years working on forest, river, and salmon conservation, restoration and education in the Pacific Northwest, including leadership roles with non-profits the River Network, Save Our Wild Salmon Coalition, Opal Creek Ancient Forest Center and others. Steve holds an MS in Space Studies from the University of North Dakota and a BA in History from the University of Michigan.

3. **Dr. Ming-Han L**i is an Assistant Professor in the Department of Landscape Architecture and Urban Planning at Texas A&M University. He is also an Assistant Research Engineer with Texas Transportation Institute. Dr. Li teaches major landscape construction and design studios, as well as design and planning for stormwater management. His research experience is in bioretention, soil bioengineering, stormwater BMPs, roadside vegetation management and landscape construction and technology. Since coming to Texas A&M University, Dr. Li has been involved in the work of the Hydraulics, Sedimentation and Erosion Control Laboratory and participated in many Texas Department of Transportation projects, including bioretention, silt fence alternatives, biotechnical streambank stabilization, flat terrain runoff travel time, compost as temporary BMP, roadside vegetation management, highway stormwater quality study, and hydrological size limitation. Dr. Li is a Professional Engineer and a registered Landscape Architect in the state of Texas.

Bioretention for Stormwater Quality Improvement in Texas

The purpose of this presentation is to provide an overview of an ongoing bioretention research project sponsored by Texas Department of Transportation (TxDOT) and conducted by Texas A&M University/Texas Transportation Institute. The research project is to investigate the applicability and identify benefits and drawbacks of bioretention best management practices (BMPs) in Texas, specifically for highway related applications. Bioretention was developed in the late 1980's in Prince George's County, Maryland. This technique utilizes soil, sand, organic matter, and vegetation-based storage and infiltration facilities for treating runoff from paved surfaces such as parking lots, streets, and highways. Currently, most bioretention results have been created by experiments conducted in different regions where climates and plants are very different from Texas.

Major tasks of the project include literature review and case study, identification of applicable situations for TxDOT, pilot testing and in-situ demonstrations. The pilot testing will focus on analyzing the bioretention cell's water quality performance and hydrologic responses. The full scale, in-situ demonstrations will closely monitor performance over a 2~3 year period to address not only the water quality issues, but maintenance of the facility. The findings will be used to develop design and implementation guidelines for adoption by TxDOT.

The significance of this project is that TxDOT will have an opportunity to adopt the bioretention technology and include the design guidelines in TxDOT's design manuals. This will enable TxDOT designers to familiarize and apply the latest design tool promoted by the US Environmental Protection Agency. Potential applicable situations include rights-of-way at interchanges and along roadsides, as well as parking facilities.

Dr. Ming-Han Li Department of Landscape Architecture and Urban Planning, College of Architecture Texas A&M University College Station, TX 77843-3137 Office Phone: (979) 845-7571 Email: <u>minghan@tamu.edu</u>

Environmental Management Program Texas Transportation Institute College Station, TX 77843-3135 4. **Emily Manderson** is an Environmental Designer at the Lady Bird Johnson Wildflower Center, at the University of Texas at Austin. The Wildflower Center conducts basic research in ecological engineering, ecological restoration and land management, offers workshops to professionals and the general public, and provides fee-supported ecological consulting expertise to clients across Texas. As part of the Wildflower Center consulting team, Emily works with design teams composed of engineers, architects, landscape architects, and developers to integrate sustainable design, practices, and philosophies into projects. Her main interest is discovering ways to apply ecological design that allows natural systems to occur simultaneously within the built environment in a manner that is holistically beneficial to that site and to the context at large. She has a B.A. in Sociology from Skidmore College, NY, a Masters of Physical Geography from Texas State University, and a Masters of Landscape Architecture from University of Texas at Austin. A few of her current projects include: Tall grass prairie restoration in a mixed use development, innovative stormwater design for redevelopment projects using techniques such as bioswales, raingardens, greenwalls, and design of an urban stormwater mitigation pond which functions as a native wetland, including aquatic and terrestrial habitat, and recreational and interpretive components.

Emily Manderson Environmental Designer Lady Bird Johnson Wildflower Center 4801 La Crosse Ave., Austin Texas 78739 (512) 232-0133 emanderson@wildflower.org

www.wildflower.org

The mission of the Lady Bird Johnson Wildflower Center is to increase the sustainable use and conservation of native wildflowers, plants and landscapes.

4. **Chris Kloss** is a Senior Environmental Scientist at the LID Center whose research focuses on how green infrastructure and low impact development can limit wet weather pollution, enhance infrastructure performance and capacity, and provide multiple environmental benefits. Chris is also the Center's lead on environmental policy issues, evaluating how regulatory approaches and incentives can be used as catalysts for innovative environmental protection strategies.

Chris Kloss Low Impact Development Center 4600 Powder Mill Road, Suite 200 Beltsville, MD 20705 cjkloss@lowimpactdevelopment.org P: 301.982.5559 F: 301.937.3507

Other Panelest Members:

1. Michael E. Barrett, P.E. authored the Edward Aquifer Technical Guidance Manual for the Texas Commission on Environmental Quality's Edwards Aquifer Protection Program and is the Associate Director for the Center for Research in Water Resources.

Michael E. Barrett, Ph.D., P.E.

Center for Research in Water Resources Bureau of Engineering Research University of Texas at Austin PRC #119, Austin, TX 78712. E-mail: mbarrett@mail.utexas.edu

2. Laith Alfaqih works with CH2M HILL's Water Business Group, San Antonio office. His expertise is in stormwater and watershed management, infrastructure system conditional assessment and asset management. He holds a BS in Civil Engineering, MS in Environmental Engineering, MS in Management Information Systems, and a PhD in Environmental Engineering. Laith has worked on many local and national environmental projects and has contributed many publications and presentations in these fields. Laith was fortunate to have Bob Pitt and Bill Hunt as his mentors in stormwater management.

Laith Alfaqih,

9311 San Pedro Avenue Suite 800 San Antonio, TX 78216-4466

210-377-3081

Laith.Alfaqih@CH2M.com

2. Andy Johnston, P.E. Andy Johnston, a civil engineer with Jacobs Carter Burgess, Austin, Texas, has won the 2008 Educational Achievement Award from the International Erosion Control Association. During his 34-year career as a civil engineering and water resources manager, he has been involved with a wide range of erosion and sediment control issues and practices for more than 27 years. Drawing on this experience, he has played a key role in providing training opportunities for erosion control professionals. Johnston received the Educational Achievement Award at the annual IECA conference, Environmental Connection, in Orlando, Fla., Feb. 19, 2008. The award honors a demonstrated commitment to excellence in natural resource conservation and environmental protection through delivery of effective erosion and sediment control education.

Andy Johnston, P.E 2705 Bee Cave Road, Suite 300 Austin, TX 78746 Phone: 512.314.3100 FAX: 512.314.3135 Andy.Johnston@jacobs.com

Other Speakers for Day 2:

1. **Robert Browning**, **P.E.** received his Bachelor of Science Degree from San Diego State University in 1987. From 1988 to 1993 he gained valuable experience working on land development and capital improvement projects in Southern California. He received his California Registration as a Civil Engineer in 1992. Then he came to his senses and relocated his family to San Antonio in 1993. He received his Texas Professional Engineers license in 1994. After spending 17 years specializing in storm water management in the private sector, Bob joined the City of San Antonio Public Works Department in 2005. Currently, he leads the City's Storm Water Engineering Review Team

Robert Browning, P.E. Department of Public Works Municipal Plaza Bldg 114 W Commerce San Antonio, Texas 78204 Robert.Browning@sanantonio.gov

2. Andrew Winter, P.E. is a licensed Professional Engineer with over 30 years of experience in the application of inter-disciplinary engineering. Environmental experience includes leading water resource study team; management of Air Force Environmental Compliance and Pollution Prevention Programs; environmental awareness and public relations; environmental risk assessments and impact studies; hazardous materials collection, storage, and disposal; exposure limits; and asbestos abatement activities. Civil engineering experience includes building planning, construction, and inspections; accessibility design, review, and inspections; large and small construction activities, engineering reviews, and project execution. Bachelor's Degree, Master's Degree and Texas Registered Accessibility Specialist.

Andrew Winter, P.E. Environmental Engineer Bexar County 233 N Pecos, Ste. 420 San Antonio, Texas 78207 (210) 335-6700 Awinter@bexar.org

3. **Debbie Reid**, City Arborist for the City of San Antonio received her Bachelor of Science in Soil and Crop Science in1977and Master of Science in Horticulture in1992 from Texas A&M University. She is a Certified Arborist by the International Society of Arboriculture. She has been since 1997 and is currently the City Arborist with the Department of Planning and Development Services implementing the Tree Preservation, Landscape, Streetscape, Irrigation and Oak Wilt ordinances which have an emphasis on preserving and using native vegetation to meet code and water conservation requirements. Also assist with "green" building and Low Impact Development program criteria and processes.

Debbie Reid, City Aborist Planning and Development Department 1901 S Alamo San Antonio, Texas 78204 (210) 207-8053 Debbie.Reid@sanantonio.gov