

2010 Regional Water Quality and Green Infrastructure Conference

May 13-14, 2010 | Dallas Convention Center | Dallas, Texas



May 13, 2010

8:00–9:00 a.m. | Registration/Visit Exhibitors

9:00–9:15 a.m. | Conference Welcome

Bill Honker, EPA Region 6

9:15–10:15 a.m. | Process for TMDLs/Implementation Plan Development

Ron Stein, TCEQ TMDL Program Manager: This presentation provides an overview of the Texas TMDL program, including a closer look at the process for developing TMDLs and implementation plans.

Curry Jones, EPA Region 6: This presentation will provide a summary of TMDL and Stormwater development tools, approaches and challenges.

10:15–10:45 a.m. | NPS 319 Grant Program/Watershed Protection Plans

Kerry Niemann, TCEQ Non Point Source Program Manager: The Texas Nonpoint Source Management Program provides a strategy and goals for addressing nonpoint source pollution. This presentation provides an overview of the Texas nonpoint source program, including grant funding requirements and the nonpoint source LID outreach project.

10:45–11:30 a.m. | Managing Wet Weather with Green Infrastructure

Dan Christian, Tetra Tech: This presentation will provide an introduction to green infrastructure: U.S. EPA's program, use of green infrastructure in wet weather management, benefits, federal regulatory framework, and performance standards.

11:30 a.m.–1:00 p.m. | Lunch/Visit Exhibitors

John Promise, NCTCOG: This presentation will describe the 2050 preferred future for North Texas that has emerged from Vision North Texas, a private-public-academic partnership, and efforts already underway to establish a Regional Ecosystem Framework.

1:00–1:45 p.m. | Benefits of GI

Christy Williams, Tetra Tech: This presentation will identify the environmental, economic and social benefits associated with green infrastructure implementation, including some quantitative case study examples.

1:45–2:30 p.m. | Operation & Maintenance of GI Practices

Dan Christian, Tetra Tech: This presentation will address O&M issues, including the components of an O&M program such as tracking, inspections, reporting and enforcement.

Dr. Fouad Jaber, Texas AgriLife Extension: This presentation will discuss O&M practices for common GI and LID practices with special focus on the DFW area and the clay soils of the Blackland Prairie.

2:30–2:45 p.m. | Break/Visit Exhibitors

2:45–3:30 p.m. | Local Codes and Ordinances

Christy Williams, Tetra Tech: This presentation will present a scorecard that can help municipal staff and stakeholders understand where a municipality's land development regulations and other ordinances might present barriers or opportunities to implementing a comprehensive green infrastructure approach.

3:30–4:15 p.m. | Retrofit Opportunities

Dan Christian, Tetra Tech: This presentation will present considerations for retrofit projects and programs to lessen the demand on storm water infrastructure.

4:15–5:00 p.m. | NCTCOG iSWMGuidance

Audra Valamides, NCTCOG: This presentation will discuss the iSWM Program for Construction and Development, a cooperative initiative in the North Central Texas region that assists cities and counties to achieve their goals of water quality and streambank protection, and flood mitigation, while also helping communities meet their obligations under state stormwater permits.

May 14, 2010

7:30–8:00 a.m. | Exhibitors

8:00–8:40 a.m. | City of Austin GI Code & Practices Implementation

Mike Kelly, City of Austin, Texas: This presentation will address updates to the Environmental Criteria Manual for the City of Austin to include innovative stormwater controls, including vegetative filter strips, porous pavement, raingardens, and biofiltration.

8:40–9:20 a.m. | Case Study: Heifer International Headquarters - Little Rock, Arkansas

Martin Smith, Environmental Design Group, Little Rock, Arkansas: This presentation will address the site design for the Heifer International World Headquarters that includes a constructed wetland which creates an educational conservation experience with a global context.

9:20–10:00 a.m. | Modeling and Analysis

Andrew Parker, Tetra Tech: This presentation will provide an introduction to green infrastructure modeling, including an overview of water resources modeling and the modeling process; a summary of models and calculators used for BMP design, site development and watershed management; and presentation of case study examples.

10:00–10:15 a.m. | Break/Visit Exhibitors

10:15–10:50 a.m. | Case Study: Low Impact Design Challenge - Houston, Texas

Robert Adair, Houston Land & Water Sustainability Forum: This presentation will provide a description of the collaborative Forum that is driving sustainable development in the Houston area and the groups behind it, as well as the lessons learned about what was important and what wasn't in developing and hosting the LID Design Competition.

10:50–11:25 a.m. | Effectiveness of GI with Respect to WQ Improvements

John Blount, Harris County Watershed Protection Group: This presentation will discuss Harris County's Green Infrastructure initiatives, including Low Impact Development (LID) regulations, LEED requirements, and LID-roadway applications. The presentation will focus on water quality applications for roadway projects and design examples for a "Green Road," as well as discuss the County's Storm Water Program.

11:25 a.m.–12:00 p.m. | City of Denton Monitoring and Modeling of Implemented Control Measures

David Hunter, City of Denton, Texas: This presentation will cover aspects of the Hickory Creek Watershed Protection Plan and analytical methods and policy frameworks for the Lake Lewisville Watershed, including BMP selection and monitoring.

12:00–12:35 p.m. | TMDL Experiences/Approaches in Oklahoma

Dr. Andrew Fang, Oklahoma Department of Environmental Quality: This presentation will summarize Oklahoma's bacteria TMDL development process and elaborate on the three implementation requirements for affected MS4s.

12:35–5:00 p.m. | Field Trips (Optional)

Trinity River Audubon Center (TRAC): This field trip will give participants a chance to see a green roof; a 30,000 gallon underground rainwater harvesting tank; porous pavement parking (using gravelpave); and wetlands.

Texas AgriLife Extension Site, County Commissioner Dickey's Office: This field trip will give participants a chance to see a 5,000 gallon above-ground rainwater harvesting system with a drip irrigation system; a bioretention area (rain garden); a "homeowner" 300 gallon rainwater harvesting system; and a large drought tolerant garden, as well as an Earthkind rose bed.



Managing Wet Weather with Green Infrastructure—Speakers

Robert Adair, President, Construction EcoServices

Bob is co-founder and Steering Committee Chair of the Houston Land/Water Sustainability Forum, which engages the broadest possible range of constituent groups in a collaborative effort that focuses on practical application to address some of the Houston area's most significant land/water sustainability issues. Bob is also President of Construction EcoServices, whose focus is on delivering solutions to developers, design professionals, property owners and contractors charged with meeting storm water regulatory obligations and/or integrating permanent storm water quality and management systems into new projects. Bob is also a former multi-term Board Member of the South Central Chapter of the International Erosion Control Association and received the organization's 2009 Sustained Contributor Award.

John R. Blount, P.E., LEED AP

John R. Blount is a 1984 graduate of the University of Houston. He has worked in the Civil Engineering Field for twenty-five years and is a Registered Professional Engineer (WI) (TX) as well as a LEED accredited professional. He has worked at the Harris County Engineer's Office for the last twenty-two years holding positions as an Inspector, Compliance Manager and Manager of Permits. He currently holds a position as Director of Architecture and Engineering for the Harris County Public Infrastructure Department. He serves on the National Sanitation Foundations' (NSF) Joint Wastewater Committee and was previously chairman of the Texas Onsite Wastewater Research Council appointed by Governor Perry.

Dan Christian, P.E., Tetra Tech

Dan is the Director of Water Resources for one of Tetra Tech's infrastructure groups. He has a bachelors and masters degree in Civil Engineering from Michigan State University with a special emphasis on water resources. Dan has over 20-year of experience as a consulting engineering and has completed numerous green infrastructure studies, designs and construction projects across the country.

William K. (Bill) Honker, P.E., Deputy Director, Water Quality Protection Division, EPA Region 6

Bill Honker has served as the Deputy Director of the Water Quality Protection Division for EPA Region 6 since March 2005. Bill has been with the Region 6 Office since 1975 and has served in management positions in the water quality, underground injection control, pesticides, hazardous waste permitting, Superfund, and air enforcement programs, as well as in the Regional Administrator's office. He recently completed a four-month assignment as the Assistant Regional Administrator for Management. Bill earned a BS degree in Environmental Science from the University of Oklahoma in 1975 and an MS degree in Environmental Science from the University of Texas at Dallas in 1985. He is a registered Professional Engineer in Texas.

David Hunter, Watershed Protection and Pretreatment Program Manager, City of Denton, Texas

Mr. Hunter works on the Phase II storm water regulations of the Clean Water Act for the City of Denton. He has worked on numerous projects related to Storm Water, Watershed Protection, Industrial Pretreatment, Wastewater Treatment, Drinking Water Treatment and Water Quality Monitoring. He has had a Dual "A" Water and Wastewater Operator Certification and is a Registered Sanitarian for the State of Texas. He has a Bachelor's degree in Chemistry and a Master's in Public Administration from the University of North Texas. He is currently also completing a Masters in Environmental Science from the University of North Texas.

Andrew Fang, Oklahoma Department of Environmental Quality

Andrew is a Professional Engineer in the Watershed Planning and Stormwater Permitting section of the Oklahoma DEQ. His work is centered on TMDL development. Andrew received his Bachelor's degree in Environmental Engineering from Shanghai University, China and M.S. in Applied Economics and PhD in Water Resources Science, both from the University of Minnesota. Before joining Oklahoma DEQ, Andrew was an environmental consultant in Michigan, working on watershed modeling and water quality trading.

Dr. Fouad Jaber, Assistant Professor and Integrated Water Resources Management Extension Specialist, Texas AgriLife Research and Extension Urban Solutions Center, Dallas

Dr. Jaber's research emphasis is integrated water resources management. His area of study is focused on best management practices to mitigate the harmful effects of urbanization on stormwater volume and water quality. He tests the effectiveness of green infrastructure (GI) and low impact development (LID) practices such as porous pavement, bio-retention areas, green roofs, rainwater harvesting and wet detention ponds. Dr. Jaber also conducts research in water reuse in urban settings including greywater and A/C condensate reuse. Dr. Jaber received his Ph.D. in Agricultural and Biological Engineering from Purdue University in December 2001 with emphasis in Natural and Environmental Resources Engineering. Dr. Jaber holds an M.S. degree in Irrigation, a B.S. in agriculture, and a diploma of "Ingenieur Agricole" from the American University of Beirut. He was also a post-doctoral research associate at the Agricultural and Biological Engineering Department of the University of Florida from 2002 to 2007, and was based at the Southwest Florida Research and Education Center in Immokalee, FL.

Curry Jones, MPH, TMDL Program Branch Chief, EPA Region 6

Mr. Curry Jones is Chief of the TMDL Program for EPA Region 6 in Dallas, Texas. Over the past 15 years, Mr. Jones has served as both a water quality modeler, and a regional TMDL program manager for EPA's Southeastern Regional Office (Atlanta, Georgia) and EPA's Pacific Northwestern Office (Seattle, Washington). Mr. Jones received his Bachelors of Science degree in Biology from Wiley College, and his Masters of Science Degree in Public Health from the University of Washington School of Public Health and Community Medicine.

Michael Kelly, P.E., Waterhed Protection Department, City of Austin, Texas

Since 1996, Mr. Kelly has been employed with the City of Austin in the Watershed Protection Department, where he is currently a Supervising Engineer. Over the past 14 years, he has had the opportunity to work in a variety of water resource specialty fields including: Stream Restoration, Stormwater Treatment, Flood Hazard Reduction, and Wastewater Collection Systems. Mr. Kelly leads a team of City

of Austin Engineers in developing innovative water quality controls (aka Green Infrastructure) and the related design criteria needed to achieve compliance with the City's Water Quality Ordinances. In addition, Mr. Kelly and his team have developed state of the science guidance documents for construction phase erosion and sedimentation plans for projects completed within the City of Austin. Mr. Kelly received both his Bachelor's and Master's Degrees from the University of Wisconsin-Madison. His Master's degree is in Agricultural Engineering-Soil and Water Resources.

Kerry Niemann, Water Quality Planning Division, Nonpoint Source Program Team Leader, Texas Commission on Environmental Quality

Kerry has thirteen years experience with the TCEQ and is a recipient of the 1999 Employee of the Year Award. Kerry's experience with the TCEQ includes four (4) years as a water quality Environmental Investigator for the Field Operations Division (FOD), one (1) year as a Water Program Liaison for FOD Central Office, seven (7) years as a Project Manager for the Total Maximum Daily Load (TMDL) Program, and over a year as Team Leader for the Nonpoint Source Pollution Program. Kerry received his Bachelor of Science in Resource and Environmental Studies from Texas State University in San Marcos. Kerry was nominated and recently completed the year-long Aspiring Leaders Program at TCEQ.

Andrew Parker, Director of Water Resources Modeling Group, Tetra Tech

Andrew has managed water resources modeling and management projects in over 25 states and internationally for federal, state, municipal, and private clients. Mr. Parker currently manages a nationwide climate change modeling project for EPA, a TMDL development support contract for the Chesapeake Bay, and large-scale modeling projects for the Klamath River in California/Oregon and the North Saskatchewan River in Alberta, Canada. His educational training includes Bachelor's and Master's degrees in civil and environmental engineering from the University of Virginia. For more than a decade, Mr. Parker has been part of a team developing and maintaining EPA environmental models, including BASINS, LSPC, and SUSTAIN. He also has extensive experience training individuals to apply environmental models, having led more than 40 courses in 8 countries.

John Promise, P.E., Director of Environment & Development, North Central Texas Council of Governments

John Promise serves as the Director of Environment & Development for the North Central Texas Council of Governments, an association of more than 200 local governments in the 16 county Dallas-Fort Worth region. He earned a B.S. in Civil Engineering from Northeastern University in Boston, Massachusetts and an M.S. in Governmental Administration from The George Washington University in Washington, D.C. He is a Registered Professional Engineer in Texas. He has chaired the National Association of Regional Council's Environmental Policy Development Group, serves on the Texas Association of Regional Council's Environmental Quality Committee, and has been active on several committees of the American Public Works Association, chairing its Water Resources Management Committee for several years. He is a full member of the Urban Land Institute.

Martin Smith, Ecological Design Group

Mr. Smith is an Arkansas native with a Bachelor of Landscape Architecture from Oklahoma State University in 1995. Martin's career began in Austin, Texas with an emphasis on stormwater management and sustainable landscape design. In 2001 Mr. Smith moved back to his home state and started a landscape architecture office in Little Rock. To promote sustainable site design in his home state Martin joined the local steering committee of the United States Green Building Council in 2002. Over the past 7 years Martin has incorporated his design principles including; best management practices, wetland restoration, prairie restoration and introducing indigenous species to urban development, into the following projects located in Arkansas.

Ron Stein, Water Quality Planning Division, TMDL Program Team Leader, Texas Commission on Environmental Quality

Ron is a geologist by training with Geology degrees from the State University of New York at Buffalo and the University of Oklahoma. Following a short career in academia, Ron became an environmental consultant for 12 years. Consulting experience included soil and groundwater investigation and remediation, superfund and RCRA projects, development of environmental compliance systems, and environmental compliance audits. As a professional Project Manager, Ron developed the project management system for his company. At the TCEQ since 2001, Ron has been part of the TMDL team working on TMDL projects throughout the Houston area and currently he is the manager of the TMDL program.

Audra N. Valamides, P.E., C.F.M., Public Works Coordinator, North Central Texas Council of Governments

Audra Valamides works for the Department of Environment and Development with the North Central Texas Council of Governments (NCTCOG). She holds a B.S. in Civil and Environmental Engineering and a M.E. in Environmental Engineering from the University of Texas at Arlington. As a consultant and project coordinator she has gained experience in drainage design and basic civil engineering. As a NCTCOG employee she has worked mainly with the Public Works Council, the iSWM Program for Construction and Development, the Trinity River COMMON VISION Program, and various other public works, water resources and floodplain related projects.

Christy Williams, Environmental Scientist and Planner, Tetra Tech

Ms. Williams has worked in the water resources and land use planning and policy field for 17 years. She has worked as a local urban, environmental planner and stormwater program manager, a state stormwater program manager for a department of transportation, an outreach and environmental program coordinator for a national conservation non-profit, and as a storm water and erosion control construction inspector and plan reviewer for several local governments in central Virginia. In addition, as an EPA contractor, Ms. Williams has conducted nearly fifty audits of local stormwater programs around the country, co-authored a federal audit guidance document, managed and conducted stormwater management trainings, reviewed Phase II stormwater management programs, written state and federal stormwater permits (individual and general), reviewed ordinances, and conducted outreach activities.