

Agenda

Presented by Chris Maxwell-Gaines, P.E.

Understanding and Implementing Principles of Low Impact Development

- Understanding the status quo: conventional development and stormwater management
- Drawbacks of conventional approaches
- Origins of low impact development (LID) concept
- Principles of LID
- Benefits of LID for builders and municipalities
 - Environmental benefits • Public
 - Municipal • Developers

State and Municipal LID Guidelines and Requirements

- Reviewing state regulations and guidelines
- Reviewing municipal ordinances and guidelines
- Exploring sustainable certifications and designations

Low Impact Development Site Planning

- Environmental site design: natural resource assessment and evaluation
- Minimizing site disturbance
- Minimize stormwater runoff
- Development of site plan

Ethical Issues, Sustainability and Low Impact Development

- Meeting obligations to future generations
- Considering principles of social and environmental justice
- Impacting other species and their habitats

Low Impact Development Integrated Management Practices

- Choosing and designing integrated management practices (IMPs)
 - Bioretention • Dry wells
 - Filter strips • Vegetated buffers
 - Level spreaders • Vegetated swales
 - Rain barrels • Rain gardens
 - Cisterns • Infiltration trenches
 - Pervious concrete/permeable pavers

Pollution Prevention, Maintenance and Public Education

- Pollution prevention techniques
- LID infrastructure maintenance
- LID public education and awareness

Low Impact Development
San Antonio, TX - Thursday, August 8, 2019

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PO Box 278
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Learning Objectives

You'll be able to:

Learn about origins and principles of the low impact development concept.

Explore benefits of LID for builders and municipalities.

Minimize site disturbance and stormwater runoff.

Meet obligations to future generations and consider principles of social and environmental justice.

Review integrated management practices including bioretention, vegetated buffers, filter strips, cisterns and pervious concrete.



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Low Impact Development

San Antonio, TX - Thursday, August 8, 2019



Learn about origins and principles of the low impact development concept

Explore benefits of LID for builders and municipalities

Study low impact development site planning techniques

Examine ethical issues, including environmental and social justice issues

Review integrated management practices and LID infrastructure maintenance

Continuing Education Credits

Professional Engineers

6.5 PDHs, Including 1.0 Ethics Hour

Contractors

Non-Credit Continuing Ed.

Architects &

Landscape Architects

6.5 HSW CEPHS/CE Hours,
Including 1.0 Sustainability Hour
6.5 AIA LU|HSW
6.5 LA CES HSW PDHs



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Faculty

Chris Maxwell-Gaines, P.E. *Innovative Water Solutions, LLC, Austin*

Mr. Maxwell-Gaines received a B.S. degree in Civil Engineering specializing in water and wastewater from Texas A&M University in College Station. After college, he and his wife joined the U.S. Peace Corps and accepted volunteer positions in Suriname, South America. They were assigned to the remote village of Godo Olo which is located in the Amazon rainforest, deep in the interior of Suriname. They helped the village implement a water well project, provided after-school tutoring, and provided business training for the villagers. They spent 27 months serving in the Peace Corps. After returning to Austin in 2002, Mr. Maxwell-Gaines worked at a civil engineering firm that provided a breadth of project experience ranging from TMDL computer modeling projects for impaired streams in Texas, to subdivision design, to water and wastewater treatment plant design. He became a licensed engineer in 2007. In 2004, Mr. Maxwell-Gaines started Innovative Water Solutions LLC. IWS is a design/build water conservation company that focuses on the nexus of stormwater management and water conservation. The company designs and installs rainwater/stormwater collection systems, stormwater management systems including green infrastructure, and graywater reuse systems, as well as efficient irrigation systems and water conservative landscaping for residential and commercial projects.

To date, Innovative Water Solutions has installed more than 6,500,000 gallons of rainwater storage capacity across the state of Texas. Mr. Maxwell-Gaines has designed rainwater harvesting systems for numerous municipalities and institutions including: Texas A&M University; The University of Texas at Austin; City of Austin; Austin Independent School District (Texas); Wimberley Independent School District (Texas); Hays Consolidated Independent School District (Texas); Atmos Energy; Denton County, Texas; City of New Braunfels; San Jacinto River Authority; SeaWorld; Texas Department of Transportation; and Texas Parks and Wildlife.

Seminar Information

Courtyard San Antonio Airport
8615 Broadway Street
San Antonio, TX 78217
(210) 828-7200

Tuition
\$289 for individual registration
\$269 for three or more registrations.
Included with your registration:
Complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Registration
8:00 - 8:30 am
Morning Session
8:30 am - 12:30 pm
Lunch (on your own)
12:30 - 1:30 pm
Afternoon Session
1:30 - 4:30 pm

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public. It offers 6.5 PDHs to professional engineers in all states, including 1.0 ethics hour. Educators and courses are not subject to preapproval in Texas.

This course offers 6.5 HSW CEPHS to Texas architects and landscape architects, including 1.0 sustainability hour. The American Institute of Architects has approved this course for 6.5 HSW Learning Units, and the Landscape Architecture Continuing Education System has approved it for 6.5 HSW PDHs. Only full attendance can be reported to the AIA/CES and LA/CES. Educators and courses are not subject to preapproval in Texas.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Maryland, New Jersey (Approval No. 24GP00000700), North Carolina, and North Dakota.

This course offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any state contractor licensing entity.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

International Existing Building Codes

- **Working with the International Existing Building Code**
Thurs., June 20, 2019, 11:00 AM - 12:30 PM CDT
- **Chapters 3, 4 & 6**
Thurs., June 20, 2019, 1:00 - 3:00 PM CDT
- **Chapters 7-10: Alterations and Occupancy**
Fri., June 21, 2019, 11:00 AM - 1:00 PM CDT
- **Chapters 11, 12 and 14: Additions and Historic Buildings**
Fri., June 21, 2019, 1:30 - 3:00 PM CDT

Retaining Structures

- **Earth Pressures and Surcharges**
Wed., June 26, 2019, 11:00 AM - 12:30 PM CDT
- **Cantilever & Apparent Earth Pressures**
Wednesday, June 26, 2019, 1:00 - 2:30 PM CDT
- **Apparent Earth Pressures**
Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT

Industrial Stormwater

- **Understanding the Federal Industrial Stormwater Program**
Thurs., June 27, 2019, 11:00 AM - 12:30 PM CDT
- **Examining Stormwater Pollutants and the Development of Total Maximum Daily Loads (TMDLs)**
Thurs., June 27, 2019, 1:00 - 2:00 PM CDT
- **Creating Stormwater Pollution Prevention Plans (SWPPPs)**
Fri., June 28, 2019, 11:00 AM - 12:00 PM CDT
- **Implementing Best Management Practices (BMPs), Sampling and Reporting**
Fri., June 28, 2019, 12:30 - 2:00 PM CDT

National Electrical Code: Onsite Power Generation and Distribution

- **National Electrical Code: Onsite Power Generation and Distribution, Part I**
Wed., July 10, 2019, 11:00 AM - 2:15 PM CDT
- **National Electrical Code: Onsite Power Generation and Distribution, Part II**
Thur., July 11, 2019, 11:00 AM - 2:15 PM CDT

For more information visit:
www.halfmoonseminars.org/webinars/

Can't Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

Low Impact Development

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How to Register	Registrant Information
Online: www.halfmoonseminars.org	Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip: _____ Occupation: _____ Email: _____ Phone: _____
Phone: 715-835-5900	Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____
Fax: 715-835-6066	
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Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278	
Complete the entire form. Attach duplicates if necessary.	Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred. () I need special accommodations. Please contact me.

Tuition

() **I will be attending the live seminar.** Single Registrant - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.

() **I am not attending.** Please send me the self-study package:

- ☐ Downloadable MP3 Audio/PDF Manual for **\$269.00**.
- ☐ CD/Manual Package for **\$289.00**.

(S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____

Expiration Date: _____ CVV2 Code: _____

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