

Agenda

Presented by Christopher Sonne P.E., SITES AP

Understanding 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

- Stormwater
- Natural resource conservation
- Circulation and site design
- Infrastructure access

Benefits of LID for builders and municipalities

- Environmental benefits
- Public
- Municipal
- Developers

Launching LID Locally

Reviewing federal and state codes and guidance

Identifying local partners, synergies and incentives

Exploring LID resources

Sustainable Onsite Stormwater Management

Reducing disturbance and impervious surfaces

Maximizing filtration and infiltration

Minimizing conveyance off site

Onsite Stormwater Best Management Practices

Choosing and designing best management practices (BMPs)

- Bioretention
- Dry wells
- Filter strips
- Vegetated buffers
- Vegetated swales
- Rain gardens
- Infiltration trenches
- Level spreaders
- Rain barrels
- Cisterns
- Pervious concrete/permeable pavers

Beyond Stormwater: Additional Site Design and Development Considerations

Avoiding greenfields

Repurposing existing sites

Density and circulation

Walkability and bikeability

Connectivity and Infrastructure Access

Land use master plan

Access to transportation services

Public water supply and sewage systems

Major neighborhood stakeholders

Low Impact Sustainable Development:
Benefits for Owners, Local Governments and Everyone Else
Richmond, VA - Wednesday, May 15, 2019

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Learning Objectives

You'll be able to:

Explore conventional development and stormwater management and consider low impact alternatives.

Examine the benefits of LID for builders and municipalities.

Discuss federal and state codes/guidance for low impact development.

Reduce site disturbance and maximize filtration and infiltration of stormwater.

Evaluate best management practices such as bioretention, filter strips, dry wells and rain gardens.

Identify local partners, synergies and incentives in regards to LID.



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Low Impact Sustainable Development: Benefits for Owners, Local Governments and Everyone Else

Richmond, VA - Wednesday, May 15, 2019



Understand the principles of low impact development

Identify benefits of LID for builders and municipalities

Reduce site disturbance

Learn onsite stormwater best management practices

Examine transportation, connectivity and infrastructure access

Repurpose existing sites, and consider walkability and bikeability

Continuing Education Credits

Professional Engineers

7.0 Continuing Ed. Hours

Architects

7.0 Continuing Ed. Hours (HSW)

7.0 AIA HSW Learning Units

Landscape Architects

7.0 Continuing Ed. Hours (HSW)

7.0 LA CES HSW PDHs

Floodplain Managers

7.0 ASFPM CECs

Contractors

Non-Credit Continuing Ed.



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Faculty

Christopher Sonne P.E., SITE AP
Director of Engineering Services at Natural Resources Design Inc.

Mr. Sonne is a licensed professional engineer in Virginia, Maryland and the District of Columbia, as well as a LEED and SITES accredited professional. He is director of Engineering Services at Natural Resources Design Inc., a sustainable site design firm based in DC. Mr. Sonne is a Level 2 instructor in the Chesapeake Bay Landscape Professionals (CBLP) program and co-teaches a sustainable landscape graduate-level design course at George Washington University. With over 33 years of design and project management experience, his philosophy is that site designs should perform their required functions while also enhancing the aesthetics and overall function of the projects they serve.

Seminar Information

Hyatt Place Richmond/Arboretum 201 Arboretum Place Richmond, VA 23236 (804) 560-1566	Registration 8:00 - 8:30 am Morning Session 8:30 am - 12:00 pm	Lunch (On your own) 12:00 - 1:00 pm Afternoon Session 1:00 - 5:00 pm
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Tuition
\$289 for individual registration
\$269 for three or more simultaneous 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

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.

Additional Learning

Webinar Series
HEC-RAS Webinar Series

- **Hydraulic Principles and Applications**
Tues., April 2, 2019, 11:00 AM - 1:00 PM CDT
- **Working with the HEC-RAS User Interface**
Tues., April 2, 2019, 1:30 - 3:00 PM CDT
- **Water Surface Profiling**
Wed., April 3, 2019, 11:00 AM - 1:00 PM CDT
- **Steady Flow Surface Profile Demonstrations**
Wed., April 3, 2019, 1:30 - 3:30 PM CDT

Wood Construction

- **Design Specifications, Building Codes and Design Values**
Thurs., April 4, 2019, 11:00 AM - 12:30 PM CDT
- **Structural Sawn Lumber, Composite Lumber and Laminated Timber**
Thurs., April 4, 2019, 1:00 - 2:30 PM CDT
- **Prefabricated Wood I-Joists Trusses**
Fri., April 5, 2019, 11:00 AM - 12:30 PM CDT
- **Connectors and Fire Protection Design**
Fri., April 5, 2019, 1:00 - 2:30 PM CDT

Off-Grid Master Class

- **Off-Grid Master Class, Part I**
Wed., April 17, 2019, 11:00 AM - 2:15 PM CDT
- **Off-Grid Master Class, Part II**
Thur., April 18, 2019, 11:00 - 2:15 PM CDT

Soil Engineering

- **Introduction to Soil Engineering**
Thurs., April 25, 2019, 11:00 AM - 12:30 PM CDT
- **Design of Excavation Support Systems**
Thurs., April 25, 2019, 1:00 - 2:30 PM CDT
- **Slope Repair Techniques**
Fri., April 26, 2019, 11:00 AM - 12:30 PM CDT
- **Soil Engineering after College: Practical Approaches to Foundations and Retaining Structures**
Fri., April 26, 2019, 1:00 - 2:30 PM CDT

For more information and other online learning opportunities visit:
www.halfmoonseminars.org/webinars/

Continuing Education Credit Information

This seminar is open to the public and offers 7.0 continuing education hours to engineers, architects and landscape architects (HSW) in most states, including Virginia. Educators and courses are not subject to preapproval in Virginia.

This event has been approved by the American Institute of Architects Continuing Education System for 7.0 HSW Learning Units (Sponsor No. J885) and by the Landscape Architecture Continuing Education System for 7.0 HSW PDHs. Full attendance is required for course attendance reporting to AIA/CES and LA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects and landscape architects.

The Association of State Floodplain Managers has approved this event for 7.0 CECs.

This course offers a non-credit continuing education opportunity to construction contractors. It has not been preapproved in any state with contractor continuing education requirements.

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

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 Sustainable Development: Benefits for Owners, Local Governments and Everyone Else
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How to Register		Registrant Information	
Online: www.halfmoonseminars.org		Name: _____	
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		() 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.	
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