



HalfMoon, LLC
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5 REASONS... You Won't Want To Miss This Seminar!

1. You'll learn about federal statutes and regulations regarding stormwater management.
2. You'll learn about Minnesota regulations and permitting procedures.
3. You'll examine stormwater management using wet and dry detention facilities.
4. You'll learn about green stormwater practices.
5. You'll learn about maintaining wet and dry detention ponds.



Minnesota Stormwater Management

A practical, one-day program for engineers, architects, landscape architects and contractors, where you'll:

- ▶ **Review** federal and Minnesota laws and regulations regarding stormwater management
- ▶ **Analyze** stormwater management strategies using wet and dry detention facilities
- ▶ **Examine** green stormwater practices, including bioretention and the use of pervious concrete
- ▶ **Learn** about maintaining wet and dry detention ponds

Eagan, MN
Thursday, February 18, 2010

6.0 PDHs for Minnesota Architects,
Landscape Architects, and Engineers
6.0 AIA SD/HSW Learning Units
6.0 LA CES HSW Hours
0.6 CSI HSW CEUs
(See inside for details)

Seminar Agenda

Understanding Federal and State Rules on Stormwater Management *L. Larson*

- ▶ Federal and state statutes and regulations
 - National Pollutant Discharge Elimination System (NPDES) requirements
 - Minnesota Pollution Control Agency stormwater management requirements
- ▶ Local requirements and procedures
- ▶ Permits and permitting process
- ▶ Special waters and impaired waters

Stormwater Management Using Wet and Dry Detention Facilities *J. Schilling*

- ▶ Detention/retention pond overview
- ▶ Advantages and disadvantages
- ▶ Design considerations
 - Hydrology
 - Site selection
 - Pond sizing
 - Outlet structures
 - Pond routing theory
 - Permitting
 - Water quality
 - Safety considerations
 - Good design practices
 - Interconnected ponds
- ▶ Steps for detention design

Green Stormwater Practices *R. Schmidt*

- ▶ Bioretention basics
- ▶ Cisterns
- ▶ Permeable pavers/pervious concrete
- ▶ Disconnecting impervious area/vegetated swales
- ▶ Soil amendments
- ▶ Sustainable landscaping
- ▶ Rainwater harvesting
- ▶ Green roofs
- ▶ Bioretention cells
- ▶ Runnels

Maintaining Wet and Dry Detention Ponds *E. Macbeth*

- ▶ Evaluating erosion
 - Techniques for preventing and repairing erosion
- ▶ Evaluating water quality
 - Managing sedimentation
 - Managing turbidity and algae bloom
 - Identifying and managing pollutants
- ▶ Maintaining outlets and trash racks
- ▶ Reviewing case studies

Seminar Faculty

Loren Larson is managing partner of Caltha LLP, headquartered in Minneapolis. Caltha provides core services related to regulatory compliance and permitting, environmental management systems and environmental planning. Caltha provides special expertise in the areas of stormwater permitting, compliance and program development. Mr. Larson is an expert in the regulatory aspects of municipal, industrial and construction stormwater permits and requirements. For industrial dischargers, he has conducted on-site assessments, evaluated control options and prepared Stormwater Pollution Prevention Plans (SWPPP) for more than 400 industrial sites. Mr. Larson is also experienced in stormwater monitoring related to National Pollutant Discharge Elimination System (NPDES) permit compliance, having managed the preparation and maintenance of Stormwater Monitoring / Benchmark Monitoring Plans templates to comply with the individual requirements of 23 different states. He has prepared site-specific stormwater monitoring plans for more than 80 permittees. He has also prepared more than 150 training programs related to stormwater pollution prevention for the industrial, municipal and construction sectors.

Joel G. Schilling, principal with Schilling Consultant Services, LLC, in Mahtomedi, has more than 30 years of experience in the environmental field. He spent ten years with the State of Minnesota (Pollution Control Agency and Department of Natural Resources), 15 years with Short Elliott Hendrickson, Inc., as senior scientist and trustee, and has owned his firm for nine years. Mr. Schilling specializes in developing policy, fostering inter-government relations on a watershed basis, and conducting training in stormwater management for municipal and industrial operations using pollution prevention techniques. He is a founding member of the North American Lake Management Society, and the Minnesota Lakes Association (a.k.a. Minnesota Waters), and he is a past president of the Minnesota Chapter of the American Public Works Association (APWA). He chaired the Chapter's management committee for the APWA International Public Works Congress and Exposition in 2005 and currently serves as the Chapter APWA Delegate. Mr. Schilling is an 11-year member of the Mahtomedi Planning Commission.

Rusty Schmidt is a wildlife biologist and landscape ecologist with 16 years of natural resource experience, having spent approximately eight years with the Minnesota Department of Natural Resources and eight as a private consultant. He currently is employed with the Washington Conservation District in Stillwater. Mr. Schmidt is very involved in designing and constructing alternative methods for managing storm water runoff in an environmentally conscious way. He has created designs for habitat restorations, raingardens, bio-infiltration swales, bio-retention basins and stormwater ponds for many different sized sites and locations ranging from small backyard raingardens to a large 500-foot long raingarden for a commercial property. Mr. Schmidt helps train homeowners and design professionals on the techniques of raingardens and has taught workshops nationwide. He has assisted raingarden initiatives like the "10,000 Rain Garden Initiative" in Kansas City, Missouri, and the Metro Blooms and Blue Thumb Programs in Minnesota.

Eric Macbeth is the Water Resources Coordinator of the Lakes and Wetlands Program for the city of Eagan. Mr. Macbeth has more than 20 years of combined experience in planning, policy, management, and research of lakes, ponds, rivers, streams, and wetlands. Since 1999, he has headed the City of Eagan's stormwater pollution prevention, lakes management, and wetlands conservation program. Mr. Macbeth has a master's degree in Water Resources from the University of Wisconsin-Stevens Point, where he focused on lakes education and management of lakeshores. He also completed graduate coursework in Water Resources Science at the University of Minnesota.

Additional Information

▶ **Tuition:** \$259.00 for one, or \$239.00 each for 3 or more from the same company or firm registering at the same time. Please make check payable to **HalfMoon LLC**. Each registration includes one copy of *Minnesota Stormwater Management*. **Pre-registration is recommended.** *Walk-in registrations will be accepted at the program if space is available.*

▶ **Send Registrations to:** HMS, P.O. Box 268, Eau Claire, WI 54702-0268. You may also register via fax at 715-835-6066, over the phone at 715-835-5900, or online at www.halfmoonseminars.com. **We do not send confirmations.** You will be contacted if any scheduling changes occur.

▶ **Date:** **Thursday, February 18, 2010**

▶ **Location:** Crowne Plaza Hotel • (651) 454-3434
2700 Pilot Knob Road
Eagan, MN 55121
(Call the Crowne Plaza Hotel or HalfMoon LLC for directions.)

▶ **Schedule:**

Registration	8:00 - 8:30 a.m.
Morning Session	8:30 a.m. - 12:00 noon
Lunch	12:00 - 1:15 p.m. <i>(On your own)</i>
Afternoon Session	1:15 - 4:15 p.m.

▶ **Continuing Education Credit:** This program is designed to qualify for 6.0 PDHs for Minnesota architects, landscape architects, and engineers. The Minnesota Board of AELSLAGID does not pre-approve continuing education activities, but it holds final authority over the PDHs claimed by its licensees. This program is registered with the American Institute of Architects Continuing Education System for 6.0 Sustainable Design HSW Learning Units and with the Landscape Architects Continuing Education System of the ASLA for 6.0 HSW hours. It is also registered with the Construction Specifications Institute Construction Education Network for 0.6 HSW CEUs. This program will be accepted for architect, landscape architect, and engineer continuing education in most states of licensure. Please refer to specific state rules to determine eligibility, or contact HalfMoon LLC for assistance. *You may email inquiries to doug@halfmoonseminars.com or call HalfMoon at 715-835-5900.*

▶ **Cancellations:** If your schedule changes and you contact us **at least 48 hours** before the start of the seminar (CST), we will offer you a full tuition refund, minus a \$10.00 service charge for each registrant. If you contact us after that time, we will offer you a credit toward another seminar, or a credit toward the CD/manual package. *If you desire, you may send another person to take your place at the seminar.*

▶ **CD/Manual Package:** A full audio recording of this seminar is available for \$269.00, which includes shipping and handling. Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

MINNESOTA STORMWATER MANAGEMENT Thursday, February 18, 2010 — Eagan, MN • Crowne Plaza Hotel, 2700 Pilot Knob Road

1. **Yes**, I will attend - **Eagan, MN** - Thursday, February 18, 2010 \$259.00 for a single registrant or \$239.00 each for 3 or more from the same firm registering at the same time.
(Manual Included)

No, I am not attending. Please send me:

CD/Manual Package - \$269.00

Prices shown include shipping and handling. Product will ship UPS; please include a physical address not PO Box.

2. **Please complete for each registrant:**

(Attach duplicate forms if necessary.)

Name: _____
Position: _____
Name: _____
Position: _____
Company/Firm: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone where we can reach you: (_____) _____ - _____

3. **I am making payment by:**

Check payable to HalfMoon LLC
(___ Yes, I was pre-registered by phone or fax.)

MC VISA AmEx Discover

Card No: _____ Expires: _____

Cardholder Name: _____

Signature: _____

E-mail Address *(for credit card receipt and program changes only):* _____

4. **Detach entire panel and send via fax to 715-835-6066 or by mail to HMS, PO Box 268, Eau Claire, WI 54702-0268.**

 **I need special accommodations. Please contact me.**

Program #10031

Thank you