# Agenda

#### Presented by Gary R. Brown

#### Stormwater Problems in Pennsylvania

Most flood prone state Volume control Critical areas

#### Pennsylvania's Existing Stormwater Management Program

Recommended site design procedure/site design checklist Site assessment

- Site evaluation and soil testing
- Stormwater calculations and methodology; case study
- Water quality

#### **Best Management Practices Manual**

Principles and control guidelines
Peal rate control
Water quality
Site factors
Non-structural BMPs
Structural BMPs

Subsurface Detention (PWD)

#### **Required Erosion and Sediment Plan Content**

Stormwater calculations and methodology Analysis of water quality benefits from BMPs Worksheet process and flow charts

**Stormwater Pollution Prevention Plans/Preparedness Prevention and Contingency Plans** 

**Case Studies** 

#### 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.

### Systems: 2019 17, December **Stormwater Management** Tuesday, I **Objectives and Design** ΡA College, F State

Learning Objectives

54720-0278

278 WI 5

HalfMoo PO Box 2 Altoona,

Education Inc.

#### You'll be able to:

**Examine** Pennsylvania's existing stormwater management program.

**Use** site assessments to determine stormwater management system design, and review the essential elements of any site assessment.

**Describe** structural and non-structural stormwater best management practices.

**Perform** stormwater calculations to establish erosion and sediment control plans.

**Discuss** subsurface stormwater detention strategies and review the elements of stormwater pollution prevention plans.





Understand storm problems in Pennsy **Examine** PA's exist management progr *Identify* best management practices (BMPs)

**Continuing Education Credits Professional Engineers** 6.5 PDHs

Architects 6.5 HSW Continuing Ed. Hours AIA Pending



## **Stormwater Management Systems: Objectives and Design**

State College, PA - Tuesday, December 17, 2019

water
/Ivania
ing stormwater
am
agement

**Learn** about subsurface detention **Explore** required erosion and sediment plan content **Discuss** stormwater pollution prevention plans.

Landscape Architects 6.5 HSW Contact Hours 6.5 LA/CES HSW PDHs

**Floodplain Managers** 6.5 ASEPM CECs

**Contractors** Non-Credit Continuing Ed.



## Faculty

#### Gary R. Brown President of RT Environmental Services, Inc.

Mr. Brown is president of RT Environmental Services, Inc., an environmental services firm located in King of Prussia, Pennsylvania. He is a professional engineer (P.E.) in 20 states, and he has been practicing environmental engineering in Pennsylvania and New Jersey since 1973. He is also a qualified environmental professional (Q.E.P.) with over 30 years of diversified engineering experience, including 22 years of engineering management experience. Mr. Brown has worked in the waste management industry and designed stormwater facilities since 1978. He has completed expert work on state and federal court cases as well.

## **Seminar Information**

#### **Ramada Conference Center** State College 1450 S. Atherton Street

State College, PA 16801 (814) 238-3001

#### 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.

Registration

8:00 - 8:30 am

Morning Session

8:30 am - 12:15 pm

Lunch (On your own)

Afternoon Session

12:15 - 1:15 pm

1:15 - 4:30 pm

#### 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

### **Structural Forensic Engineering**

- Introduction to the Forensic Engineering Process
- Tues., Nov. 12, 2019, 11:00 AM 1:00 PM CST Causes of Failures and the Forensic
- **Engineering Report**
- Tues., Nov. 12, 2019, 1:30 3:30 PM CST
- Forensic Examination of Structures and Use in Litigation
- Wed., Nov. 13, 2019, 11:00 AM 1:00 PM CST

#### **Stormwater Management Systems** Basics of Stormwater Regulations and **Requirements, Including EPA Regulations**

Wed., Nov. 20, 2019, 11:00 AM - 12:00 PM CST Site Planning and Choosing Best

**Stormwater Management Practices** Wed., Nov. 20, 2019, 12:30 - 2:00 PM CST

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

#### • Working with the MS4 Regulator

- Thurs., Nov. 21, 2019, 11:00 AM 12:00 PM CST
- Long-Term Stormwater Management
- **Practices** Thurs., Nov. 21, 2019, 12:30 - 2:00 PM CST

#### **Cogeneration System**

- Principles and Practice
- Understanding the Benefits of Cogeneration
- Thurs., Nov. 21, 2019, 11:00 AM 12:30 PM CST Laws, Regulations and Building Codes
- **Impacting Cogeneration** Thurs., Nov. 21, 2019, 1:00 - 2:30 PM CST
- Examining Cogeneration Technologies Fri., Nov. 22, 2019, 11:00 AM - 12:30 PM CST
- Moving to Cogeneration: Analysis, Modeling and Case Studies Fri., Nov. 22, 2019, 1:00 - 2:30 PM CST

### **Continuing Education Credit Information**

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects and landscape architects in most states, including Pennsylvania. Educators and courses are not subject to pre-approval in Pennsylvania.

This course has been submitted to the American Institute of Architects Continuing Education System for course approval (Sponsor No. J885). The Landscape Architecture Continuing Education System has approved this program for 6.5 HSW PDHs. Visit www.halfmoonseminars.org for current AIA/CES for current course approval information under this course listing.

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

The Association of State Floodplain Managers has approved this seminar for 6.5 CECs for certified floodplain managers.

This course offers a non-credit continuing education opportunity to construction contractors.

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.

#### 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.

How to Register		Registrant Information			
Online:		Name:			
www.halfmoonseminars.org		Address:			
Phone: 715-835-5900		City:State: Zip			
		Occupation:			
15 055 5500		Email:			
Fax:	Code:	Phone:			
715-835-6066		Additional Registrants:			
		Name: Occupation:			
Mail:	cation Inc	Email:			
HalfMoon Edu PO Box 278, Al		Phone:			
54720-0278		Name:			
0210		Occupation:			
Complete the ent		Email:			
duplicates if necessary.		Phone:			
		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.			
<ul> <li>Tuition <ul> <li>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.</li> <li>I am not attending. Please send me the self-study package: <ul> <li>Downloadable MP3 Audio/PDF Manual for \$269.00.</li> <li>CD/Manual Package for \$289.00.</li> <li>USB/Manual Package \$289.00.</li> </ul> </li> <li>(S&amp;H included. Please allow five weeks from seminar date for delivery)</li> </ul></li></ul>					
Checks: Make	pavable to HalfMo	oon Education Inc.			
		American Express, or Discover			
	mber:				
		CVV2 Code:			
•					
Billing Address:					
8		State: Zip:			
5					
Email:					
		© 2019 HEI #19 PASWMGMT 12 17 SCOL JB			

Registration

State College, PA - Tuesday, December 17, 2019

HalfMoon Education Inc.,	
PO Box 278, Altoona, WI	
54720-0278	

Complete the entire form. Attach
duplicates if necessary.

### Stormwater Management Systems: Objectives and Design