

# Agenda

Presented by Rachael Keish

## Understanding Stormwater Permit Requirements and Procedures

- Background and development of national and state regulations and permit requirements
- Activities exempt from construction general stormwater permit requirements
- Complying with NPDES and the California State Water Resources Control Board
  - Notice of intent requirements
  - What the permit covers and does not cover
  - Application process
  - General requirements and standard conditions
  - Implementing, monitoring and assessing SWPPPs

## Understanding and Applying the Science of Stormwater

- Hydrology, soil science and drainage
- Identifying consequences of storm events
- Stormwater modeling
- Runoff reduction, routing and storage
- Infiltration and percolation

## Choosing Appropriate Stormwater Best Management Practices (BMPs)

- Stormwater management planning
- Sizing criteria
- Green infrastructure practices
  - Preservation of natural features and conservation design
  - Reducing impervious cover
- Green management techniques
  - Conservation of natural areas
  - Vegetated swales
  - Stream daylighting
  - Green roofs
  - Rain barrels/cisterns
  - Proprietary practices
  - Riparian buffers and filter strips
  - Disconnected runoff
  - Rain gardens
  - Stormwater planters
  - Porous pavement

## Developing Stormwater Pollution Prevention Plans (SWPPP)

- Including required elements
- Assessing building sites
- Choosing best management practices (BMPs)
- Planning for required inspection, maintenance and recordkeeping
- Obtaining plan certification
- Implementing SWPPPs

## Developing Plans for Inspection, Monitoring, Maintenance and Recordkeeping

- Understanding the science and terminology of stormwater management and monitoring
- Implementing monitoring plans
- Reviewing stormwater BMP case studies

## Stormwater Management

Riverside, CA - Wednesday, December 18, 2019



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## Learning Objectives

### You'll be able to:

**Comply** with National Pollution Discharge Elimination System (NPDES) and California requirements for obtaining stormwater permits for new construction.

**Identify** the consequences of storm events and use stormwater models to predict runoff and routing.

**Choose** stormwater best management practices, including conservation of natural areas, riparian buffers, vegetated swales, rain gardens, cisterns and porous pavement.

**Describe** the contents of stormwater pollution prevention plans, including best management practices and plans for required inspection, maintenance and recordkeeping.



# Stormwater Management

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**Understand** the background and development of national and state stormwater rules and permit requirements

**Identify** activities exempt from construction general stormwater permit requirements

**Examine** the required elements and best management practices for stormwater pollution prevention plans

**Review** stormwater best management practices that can reduce runoff and promote infiltration

**Learn** about stormwater management and monitoring

## Continuing Education Credits

**Professional Engineers**  
7.0 Continuing Ed. Hours

**Floodplain Managers**  
7.0 ASFPM CECS

**Landscape Architects**  
7.0 LA/CES HSW PDHs

**Architects**  
7.0 AIA LU|HSW  
(Non-qualifying for  
CA architect licensure)



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# Faculty

**Rachael Keish** *CEO at Keish Environmental*

Ms. Keish has over 20 years of experience in environmental engineering, specializing in stormwater and construction mitigation compliance. Ms. Keish is a California Stormwater Quality Association (CASQA) qualified trainer of record under the construction and industrial stormwater permits, as well as a qualified SWPPP practitioner/developer (QSP/D) and qualified industrial stormwater practitioner (QISP). She has also conducted state-wide stormwater trainings on visual trash assessment for full trash capture equivalence. Her project experience includes work as seconded staff on a Phase II MS4 program, as well as in design and construction on large infrastructure projects. She is also an Envision sustainability professional (ENV SP), and an ISI verifier and trainer. Ms. Keish is currently serving as CASQA Non-Traditional Subcommittee co-chair and WTS Women's Leadership Program chair.

Here's what past attendees had to say about the program and presenter Rachael Keish:

"Very good seminar, very knowledgeable presenter." – *Civil Engineer*

"Informative presentation, captivating speaker." – *Civil Engineer (Pavements)*

"One of the best presentations & presenters I've had in your seminars." – *Architect*

# Seminar Information

**Courtyard Riverside UCR/  
Moreno Valley Area**

1510 University Avenue  
Riverside, CA 92507  
(951) 276-1200

Registration

8:00 - 8:30 am

Morning Session

8:30 - 11:45 am

Lunch (On your own)

11:45 am - 12:45 pm

Afternoon Session

12:45 - 5:00 pm

## 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](http://www.halfmoonseminars.org).

## How to Register

- Visit us online at [www.halfmoonseminars.org](http://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/](http://www.halfmoonseminars.org/webinars/)

## Continuing Education Credit Information

This seminar is open to the public and offers a continuing education opportunity to California professional engineers, landscape architects, architects (non-credit), and floodplain managers. Continuing education is not required for license maintenance or renewal in California.

This seminar is approved by the American Institute of Architects Continuing Education System for 7.0 LU|HSW (Sponsor No. J885) and the Landscape Architecture Continuing Education System for 7.0 HSW PDHs. Only full attendance is reportable to the AIA/CES and LA/CES. Visit [www.halfmoonseminars.org](http://www.halfmoonseminars.org) for complete AIA/CES information under this course listing.

This event has been approved by the Association of State Floodplain Managers for 7.0 CECs.

Professional engineers, landscape architects, and architects seeking continuing education credit in other states will be able to apply the hours earned at this seminar, in most cases. Refer to specific state rules to determine eligibility.

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.

- **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

# Registration

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### How to Register

**Online:**  
[www.halfmoonseminars.org](http://www.halfmoonseminars.org)

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**Complete the entire form.** Attach duplicates if necessary.

### Registrant Information

Name: \_\_\_\_\_

Company/Firm: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Occupation: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

### Additional Registrants:

Name: \_\_\_\_\_

Occupation: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

Name: \_\_\_\_\_

Occupation: \_\_\_\_\_

Email: \_\_\_\_\_

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.

## 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**.  USB/Manual Package **\$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*

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