

# Agenda

*Presented by*  
**Ginny Snead, P.E., & Gregory Fox P.E.**

## **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 Virginia Department of Environmental Quality regulations

- Notice of intent requirements
- What the permit covers and does not cover
- Application process
- General requirements and standard conditions
- Stormwater management, dewatering and treatment
- Implementing, monitoring and assessing stormwater management plans

## **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 Storm Water 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 Management Plans**

Including required elements

Assessing building sites

Choosing best management practices (BMPs)

Planning for required inspection, maintenance and recordkeeping

Obtaining plan certification

Implementing plans

## **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

## Virginia Stormwater Management 2021

Live, Interactive Webinar - Monday, January 25, 2021

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## Learning Objectives

### ***You'll be able to:***

**Comply** with NPDES and Virginia Department of Environmental Quality stormwater regulations.

**Apply** the science of stormwater to promote infiltration and reduce runoff.

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

**Review** stormwater best management practices that can reduce stormwater runoff, including riparian buffers, vegetated swales and rain gardens.

**Comply** with requirements for inspection, monitoring and recordkeeping.



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# Virginia Stormwater Management 2021

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**Determine** when a stormwater permit is necessary and comply with stormwater permit requirements

**Describe** the elements to be included in stormwater pollution prevention plans (SWPPPs)

**Obtain** plan certifications for SWPPPs

**Choose** appropriate stormwater best management practices (BMPs) and develop plans for inspection, monitoring, maintenance and recordkeeping

**Utilize** green infrastructure practices such as porous pavement, storm water planters and cisterns

## Continuing Education Credits

### **Professional Engineers**

7.0 PDHs

### **Architects**

7.0 HSW CE Hours

### **AIA**

7.0 LU | HSW

### **Landscape Architects**

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### **LA CES**

7.0 HSW PDHs

### **Floodplain Managers**

7.0 ASFPM CECs

### **International Code Council**

.7 CEUs (Sitework)



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# Faculty

**Ginny Snead, P.E.** *Associate at A. Morton Thomas and Associates, Inc. (AMT), Williamsburg, VA*  
Ms. Snead is a water resources engineer with more than 25 years of consulting and state government experience, specializing in water planning, engineering and policy in Virginia and in the Chesapeake Bay watershed. Her municipal experience includes stormwater master planning, BMP and retrofit design, inspection oversight, plan review and programmatic planning and reporting services. Her prior experience includes directing the Office of Stormwater at the Virginia DEQ and managing the Office of Regulatory Programs at the Virginia DCR which governed both the NPDES (MS4, Construction General Permit) for stormwater and the TMDL implementation plan programs, and which included the Virginia Erosion and Sediment Control Program, the Virginia Stormwater Management Program (and Virginia Stormwater BMP Clearinghouse), the Chesapeake Bay Preservation Act Program and Nutrient Management. Ms. Snead led the state team negotiating Virginia’s 2013 MS4 NPDES permits with U.S. EPA Region III which still serve as the basis for MS4 permits in the Commonwealth. She has served as the project manager and technical lead on projects including stream restoration, outfall stabilization and BMP retrofits as well as on MS4 compliance projects. She currently serves as a member of the Chesapeake Bay Urban Stormwater Workgroup, closely following and commenting on the changes in stormwater BMP crediting in the Bay. She also serves on the committee developing protocols for manufactured treatment devices, to encourage innovation in MS4 TMDL compliance options. Ms. Snead is the board chair for the Alliance for the Chesapeake Bay, a non-profit focused on improving the health of the Bay, and she serves as a member of the Commonwealth of Virginia Chesapeake Bay Stakeholder Advisory Panel.

**Gregory Fox P.E.** *Associate, A. Morton Thomas & Associates, Inc.*  
Mr. Fox is a water resource engineer with significant management and technical experience in NPDES/MS4 projects and designs for water quality improvements and TMDL reductions and other transportation and municipal projects. He designs and manages: drainage studies and design; storm sewer and culvert design; watershed and stream assessment; outfall retrofit, stream restoration and stabilization design; H&H modeling, bridge hydraulics and scour protection; floodplain studies and FEMA CLOMR/LOMR coordination; ESD/LID/Water Quality BMP design; stormwater pond retrofits and SWM facility and storm drain outfall inspection, and BMP selection and pollutant load reduction calculations for NPDES/TMDL compliance.

# Webinar Information

|  |  |
|--|--|
| Log into Webinar<br>8:00 - 8:30 am EST | Break<br>11:45 am - 12:45pm EST          |
| Morning Session<br>8:30 - 11:45 am EST | Afternoon Session<br>12:45 - 5:00 pm EST |

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# Additional Learning

**Preventing and Addressing Construction Defects and Failures**  
- Mon, Dec 21, 2020 | 8:30 am - 5:00 pm CST

**Residential and Small Commercial International Energy Conservation Code**  
- Tues, Dec 29, 2020 | 9:30 am - 4:30 pm CST

**Deep Foundations and Excavations**  
- Wed, Dec 30, 2020 | 9:00 am - 5:00 pm CST

**Practical Site Engineering: Science & Techniques**  
- Thurs., Jan. 14, 2021 | 11:00 am - 3:15 pm CST  
- Friday, Jan. 15, 2021 | 11:00 am - 2:15 pm CST

**The Arborist Short Course: Advanced Tree Knowledge for Better Tree Care**  
- Fri., Jan. 15, 2021 | 9:00 am - 4:30 pm CST

**Mitigating Fire Risks through Landscape Design, Materiality, and Stewardship**  
- Thurs., Jan. 21, 2021 | 11:00 am - 1:00 pm CST

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Completion certificates will be awarded to participants who complete this event, respond to prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

# Registration

**Virginia Stormwater Management 2021**  
Live, Interactive Webinar - Monday, January 25, 2021

| How to Register  |  | Registrant Information  |
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