

# Water Quality Modeling Basics and Beyond

## About the Water Quality Modeling Basics and Beyond Webinar Series

EPA's Water Modeling Workgroup is hosting a series of webinars to help water quality professionals better understand surface water quality modeling and how models can be used to solve common problems that face water quality regulators. The webinars are focused on modeling as it applies to the Total Maximum Daily Load (TMDL), Standards, and Water Quality Permitting Programs, but they are applicable to a wide range of audiences. These two hour webinars cover everything from modeling basics (e.g., model setup and calibration) to applied water quality modeling of different pollutants. Webinars are recorded and archived on EPA's website at <https://www.epa.gov/waterdata/surface-water-quality-modeling-training>.

## EPA's Storm Water Management Model (SWMM)

EPA's Storm Water Management Model (SWMM) is used throughout the world for planning, analysis, and design related to stormwater runoff, combined and sanitary sewers, and other drainage systems in urban areas. There are many applications for drainage systems in non-urban areas as well. SWMM is a dynamic hydrology-hydraulic water quality simulation model. It is used for single event or long-term (continuous) simulation of runoff quantity and quality from primarily urban areas. The runoff component operates on a collection of sub-catchment areas that receive precipitation and generate runoff and pollutant loads. The routing portion transports this runoff through a system of pipes, channels, storage/treatment devices, pumps, and regulators. SWMM tracks the quantity and quality of runoff made within each sub-catchment. It tracks the flow rate, flow depth, and quality of water in each pipe and channel during a simulation period made up of multiple time steps. SWMM 5 has been extended to model the hydrologic performance of specific types of low impact development (LID) controls.

**Speaker: Michelle Simon (U.S. Environmental Protection Agency)**

**Tuesday, February 20, 2018**

Eastern: 12-1:30 pm | Central: 11 am - 12:30 pm | Mountain: 10-11:30 am | Pacific: 9 - 10:30 am

**Sponsored By: EPA Water Modeling Workgroup**

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### Target Audience

The target audience is Clean Water Act (CWA) water quality regulators in programs such as TMDLs, monitoring, wetlands, standards, nonpoint sources, permitting, and assessment. The Webinar content assumes that audience members have an understanding of basic hydrology and water quality principles. The Webinars are open to everyone and will be relevant to anyone conducting water quality investigations.

**Registration:** You must register in advance to participate in this free Webinar. Please register at:

<https://www.eventbrite.com/e/epas-storm-water-management-model-swmm-tickets-42467853493> . For more information contact Jason Gildea ([Gildea.Jason@epa.gov](mailto:Gildea.Jason@epa.gov)). Please be sure to [view system requirements](#) prior to the webinar.

The materials in this Webinar have been reviewed by EPA staff for technical accuracy. However, the views of the speakers and the speaker's organization are their own and do not necessarily reflect those of EPA. Mention of any commercial enterprise, product, or publication does not mean that EPA endorses them.