

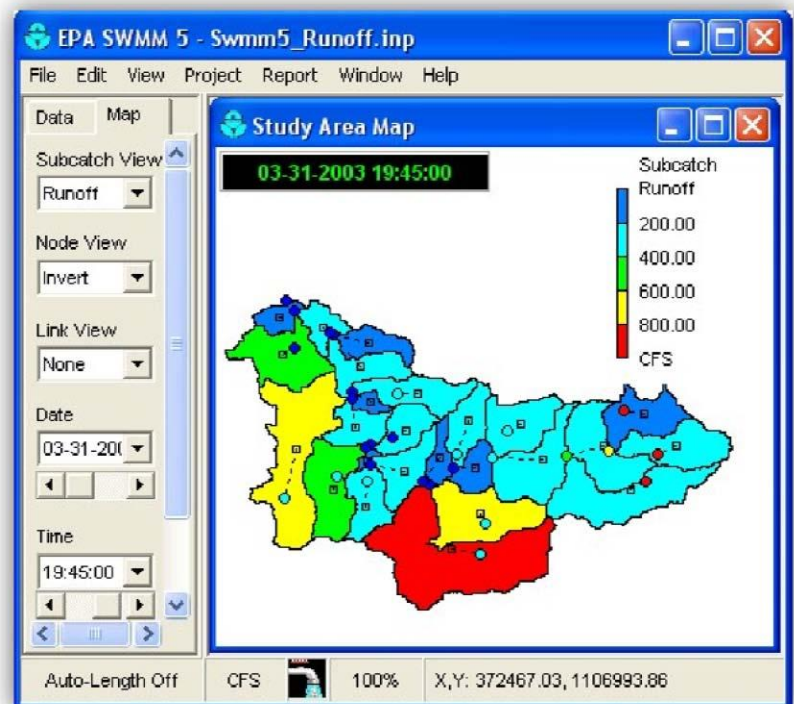
IAFSM Annual Conference 2011
Course Announcement – Pre-conference workshop
BMP-LID Design with EPA SWMM (5.0.021)
March 8, 2011

What is SWMM?

The EPA Storm Water Management Model (SWMM) is a dynamic rainfall-runoff simulation model used for single event or long-term (continuous) simulation of runoff quantity and quality from primarily urban areas. The runoff component of SWMM operates on a collection of subcatchment areas that receive precipitation and generate runoff and pollutant loads. The routing portion of SWMM transports this runoff through a system of pipes, channels, storage/treatment devices, pumps, and regulators. SWMM tracks the quantity and quality of runoff generated within each subcatchment, and the flow rate, flow depth, and quality of water in each pipe and channel during a simulation period comprised of multiple time steps.

What is SWMM5?

SWMM was first developed in 1971, and has since undergone several major upgrades since then. It continues to be widely used throughout the world for planning, analysis and design related to stormwater runoff, combined sewers, sanitary sewers, and other drainage systems in urban areas, with many applications in non-urban areas as well. **SWMM 5** provides an integrated environment for editing study area input data, running hydrologic, hydraulic and water quality simulations, and viewing the results in a variety of formats. These include color-coded drainage area and conveyance system maps, time series graphs and tables, profile plots, and statistical frequency analyses. **SWMM 5** also includes components to model runoff reduction via Low Impact Development (LID) controls.



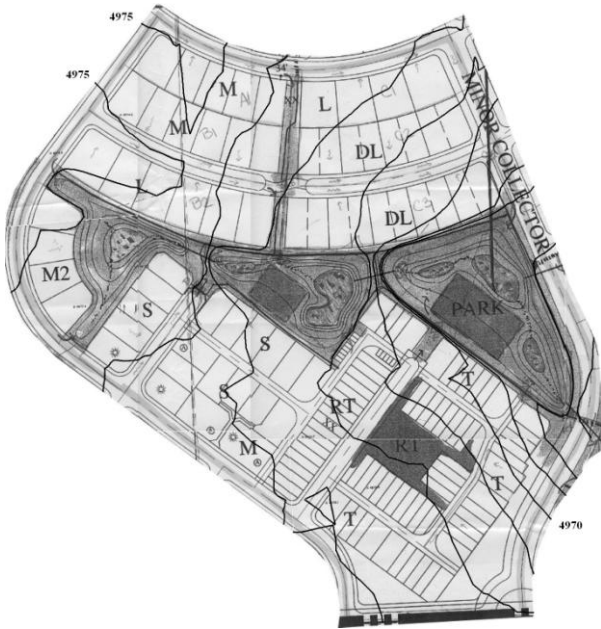
Typical Applications of SWMM

- Evaluating Best Management Practices (BMPs) for sustainability goals
- Design and sizing of drainage system components including detention facilities
- Control of combined and sanitary sewer overflows (CSOs and SSOs)
- Generating non-point source pollutant loadings for wasteload allocation studies
- Flood plain mapping of natural channel systems

Learning Objectives

1. Get information about SWMM5 capabilities and features.
2. Learn how to prepare SWMM5 input file and interpret SWMM5 output results.
3. Learn how to use SWMM5 as a LID/BMP analysis and design tool.
4. Prepare yourself for future EPA stormwater regulations that will address runoff volume control and other stormwater quality objectives.

Target audience: Civil and environmental engineers and scientists who work with storm sewer systems, BMP and LID design, or stormwater management. The course is intended for those familiar with stormwater modeling theory and practice for site design applications. Watershed planners and policy specialists may not find the content to be applicable. It is assumed that the student does not have prior experience with SWMM. Experienced SWMM users may find parts of the course less than useful.



Course type

Instructor led course with 40% lectures and 60% hands-on exercises

Pre-requisite

Students should know how to use Windows[®]-based software and have a basic understanding of hydrology, hydraulics and stormwater LID and BMP design.

Course Outline

- SWMM Description
- SWMM Capabilities
- User interface
- SWMM Applications to LID/BMP design
- Input data
- Output results
- Tutorial
- Hands-on LID Design Exercise
- Brief Overview of the Watershed and BMP Modeling Program WinSLAMM

Course Duration

8.0 hours with additional 45 min for lunch

Date and Time

March 8, 2011 from 8 AM to 5 PM with a lunch break from 12:15 to 1:00 PM.

Registration Deadline

March 1, 2011

Location

Marriott Bloomington-Normal Hotel & Conference Center
201 Broadway Ave, Normal, IL, 61761

Computer Requirements

[Students must bring their own laptop computer to work on the course exercises, with EPA SWMM installed.](#)

One week before the training date, the registered students will receive a link to download SWMM software and user's manual. Handouts, case study files and software installation instructions will be also emailed. Before arriving for the training, the students will have to install the software on their laptop and print the handouts and user's manual.

Once installed, double click on the SWMM icon on your desktop to confirm that the program properly opens. It is the instructors' intent to avoid delays at the start of the course due to installation needs or lack of case study files. Students must install the program in advance of the course, and load the supplemental files on their C:\ Drive. For any questions, contact Greg Kacvinsky at gkacvinsky@foth.com or (217) 353-7344.

Course Fee

The course fee is \$90.00, and enrollment is limited to 25 students. Lunch is provided. Breaks with simple refreshments and food items will be provided.

Certificates

PDH and CEC credits: 7.5 and 6.0, respectively.

Course Instructors

Greg Kacvinsky P.E., Bob Murdock P.E., and Shauna Urlacher, P.E.

Kacvinsky: Mr. Kacvinsky is a Senior Project Manager and oversees municipal consulting services for the Illinois operations of Foth. He received his Bachelor's Degree in Civil Engineering from the University of Wisconsin - Madison in 1995. He finished his MBA at the University of Michigan - Ann Arbor in 2002. He has 16 years of experience in stormwater-related analysis, planning, and design. Mr. Kacvinsky's experience includes stormwater master planning, watershed planning, stormwater and wastewater hydrologic/hydraulic analyses, floodplain analysis, streambank stabilization and restoration, combined sewer system analysis, and residential and commercial site design and site

plan review.

Murdock: Mr. Murdock currently works for Michael Baker Corporation as Water Resources Manager in its Chicago Office, His current responsibilities include managing a team of 12 technical staff who provide floodmap production as well as stormwater planning and design services to the Illinois and Midwest geographies. Mr. Murdock has over 20 years of experience in civil and mechanical engineering, in the disciplines of hydraulic and floodplain mapping studies, dam and canal design, stormwater management, hydropower, water supply and sanitation, construction supervision and natural disaster mitigation. He has managed complex water resources projects involving dam reconstruction, stream restoration, whitewater kayak and fish passage channel design, bid document preparation, and stormwater contaminant BMP studies.

Urlacher: Ms. Urlacher is a Project Engineer with Clark Dietz, Inc. and has over seven years of experience in the water resources field. Her experience includes hydrologic and hydraulic modeling, open-channel and pipe hydraulics, roadway drainage, local drainage studies, ordinance development and municipal NPDES Phase II compliance programs. Ms. Urlacher earned her Bachelor of Science Degree in General Engineering from Montana Tech of the University of Montana. She is a licensed professional engineer in the State of Illinois, a Certified Floodplain Manager and a Certified Citizen Scientist. Ms. Urlacher will provide an Overview of WinSLAMM.

How to Register?

Mail Registration to: IAFSM
35W749 Bluff Drive
St. Charles, Illinois 60175
Or FAX to: (630) 443-8198

Registration form can be found in the general Pre-Conference Workshop announcement. See the IAFSM website or contact Sarah Harbaugh by email (see below) to obtain the form.

A special conference rate of \$119 plus tax, single or double, per night, has been established at the Marriott. Reserve your room by calling Marriott reservations at (888) 236-2427 and tell them you are with the Illinois Association for Floodplain & Stormwater Management. *The hotel's reservation deadline for this rate is February 15th.*

If you have any questions, please contact Sarah Harbaugh, IAFSM Executive Secretary:
Phone: (630) 443-8145
FAX: (630) 443-8198
Email: IAFSM@sbcglobal.net

All registrants will receive email notification. Please contact Sarah Harbaugh if you mailed in your registration and did not receive an email.