



ALABAMA TRANSPORTATION ASSISTANCE PROGRAM

Alabama's Local Technical Assistance Program - Alabama's LTAP Center

Presents a Seminar on

Runoff Control with National Stormwater Calculator

Huntsville	Pelham	Mobile	Montgomery
May 14, 2019	May 15, 2019	May 29, 2019	May 30, 2019

Runoff control as a part of stormwater management is an important and challenging task for engineers and practitioners in the context of municipal separate storm sewer systems (MS4s), transportation infrastructure, and other types of land use. There is a need for stormwater managers to use modern tools that enable accurate assessments of runoff control measures in developed areas. Without careful analysis, runoff from developed areas may create impacts to receiving streams and water bodies in terms of flooding, channel erosion, and water quality. The runoff control using Low Impact Development (LID) is a modern concept and practice as runoff source control. A few tools have been developed to aid in the analysis and design of LID facilities, among which the National Stormwater Calculator (SWC) is developed and sponsored by the US Environmental Protection Agency (EPA). The SWC is a simple-to-use tool for computing small site hydrology for any location within the USA. It estimates the amount of stormwater runoff generated from a site under different development and control scenarios over a long term period of historical rainfall.

Currently, many municipalities in the State of Alabama use alternatives such as the TR-55 or other rainfall-runoff calculation tools that are unable to characterize runoff controls of LIDs explicitly in formulations. The primary goal of this seminar is to acquaint attendees with SWC, and present its advantages and applications in the context of stormwater management for runoff control or restore pre-development hydrology. The specific objectives include: (1) introduce the SWC capability; (2) calculate frequency of runoff in the pre-development site using SWC under long-term historical rainfall records; (3) use SWC to assess the runoff-control effects of LID facilities; (4) use SWC to project the impact of climate change on future runoff control.

This seminar should be of interest to project engineers, stormwater managers, site developers, urban planners, and all those whose work involves stormwater management. **Participants should bring a laptop in which SWC is previously installed. SWC model can be freely downloaded at the EPA web address: <https://www.epa.gov/sites/production/files/2018-10/stormwatercalculator1.2.0.2.zip>.**

Seminar Instructor

Xing Fang, Ph.D.

Xing Fang is an Arthur H. Feagin Chair Professor of Hydraulics and Hydrology at Auburn University in the Department of Civil Engineering. He is an ASCE fellow, an ASCE EWRI fellow, and a Diplomate of Water Resources Engineer. He earned a B.E. (1987) from Tsinghua University in China, a M.Sc. (1991) and a Ph.D. (1994) in Civil Engineering from the University of Minnesota. He currently teaches courses in the areas of Hydraulics, Hydrological Analysis and Modeling, Stormwater Management, and Surface Water Quality Modeling. The focus of Dr. Fang's research program is in the areas of stormwater modeling, hydraulic/hydrological analysis, and surface water quality modeling in lakes, reservoirs, and estuaries.

Seminar Topics and Schedule

- Stormwater management and Lower Impact Development (LID)
- Rainfall analysis and the 95th percentile rainfall
- Introduction of the EPAS's National Stormwater Calculator (SWC)
- Data input: projection site, rainfall, soil type, topography, land cover, and LID controls
- Workshop activity: Creating a project using SWC
 - Changing project site attributes
 - Running simulations
 - Reviewing and interpreting results
 - Running model scenarios with LID controls
 - Projecting impacts of climate changes
- Summary

8:00 a.m.	Registration & Check-In (Coffee)
8:30 a.m.	Call to Order, Welcome, Seminar Objectives
10:15 a.m.	BREAK
12:00 Noon	LUNCH
1:00 p.m.	Seminar Instruction Continues
2:15 p.m.	BREAK
4:00 p.m.	Seminar Evaluations, Certificates, Adjournment

Locations

Huntsville, May 14, 2019

Holiday Inn - Research Park
5903 University Drive
Huntsville, AL 35816
800-845-7275

Mobile, May 29, 2019

Hampton Inn & Suites Providence Park
525 Providence Park Drive
Mobile, AL 36695
251-776-5866

Pelham, May 15, 2019

Fairfield Inn & Suites
230 Cahaba Valley Rd.
Pelham, AL 35124
205-987-9879

Montgomery, May 30, 2019

Hilton Garden Inn Montgomery - East Chase
7665 East Chase Parkway
Montgomery, AL 36117
334-244-0101

Continuing Education Units

Participants completing this seminar will receive 0.60 Continuing Education Units (CEUs). The CEU is a nationally accepted measure of continuing education credit and is awarded at the rate of one CEU for each ten contact hours of qualifying instruction. Auburn University makes every effort to ensure that the CEU granting programs conform to the requirements of the State of Alabama Board of Licensure for Professional Engineers and Land Surveyors for the award of Professional Development Hours to support the renewal of professional licensure.

Sponsorship

This seminar is one of the series of conferences and workshops being conducted as part of the Alabama Transportation Assistance Program (ATAP) at Auburn University. This program is a part of the Local Technical Assistance Program (LTAP) supported by the Federal Highway Administration, the Alabama Department of Transportation and Auburn University.

This seminar is the 368th offered, with more than 45,000 attendees, since the program's inception in 1983. The Alabama Transportation Assistance Program is administered at Auburn University through the Department of Civil Engineering. For further information and suggestions for future programs, contact Rod Turochy, Alabama Transportation Assistance Program, at 334-844-6271 or rodturochy@auburn.edu

Accommodation of Participants with Disabilities

It is the policy of Auburn University to provide accessibility to its programs and reasonable accommodation for persons defined as having disabilities under the Americans with Disabilities Act of 1990. Please contact us at least two weeks prior to the event so that proper consideration can be given to any special needs.

Cancellation Policy

We understand that circumstances may arise that could require you to cancel your registration, and we make every effort to accommodate your needs. Due to commitments to our instructors and facilities, the registration fee is not refundable if a registrant withdraws less than five working days before the seminar. You may substitute registrants; please notify us in advance if possible. Non-paid, no show registrants will be invoiced for the full cost of the seminar. Engineering Continuing Education reserves the right to cancel or modify any program offering, but will provide registrants the option of a full refund. Auburn University will not be responsible for expenses incurred by a registrant as the result of a cancelled or rescheduled program.

Registration

Please complete and return the enclosed registration form. A fee of \$175.00 per person should be mailed with your registration. Payment may be made by phone or fax if paying with a credit card or government agency purchase order. Registrants are reminded that registration is not complete until payment is made. The registration fee includes handout materials, break refreshments, lunch and a certificate of participation. Thank you for your continued support of the Alabama Transportation Assistance Program.

Your pre-paid registration guarantees you a seat in the seminar as well as information on any changes to the seminar. Registration on the day of the seminar will be accepted on a space available basis, but enrollment will close when the capacity of the seminar is reached. **Participants are reminded that registration is not complete until payment is received.**

ONLINE REGISTRATION AT: www.eng.auburn.edu/atap

Runoff Control with National Stormwater Calculator

Huntsville, May 14, 2019 Pelham, May 15, 2019 Mobile, May 29, 2019 Montgomery, May 30, 2019

Name _____

Employer _____ Position _____

DOT Division/Bureau _____ Address _____

City _____ State _____ Zip+4 _____

Phone _____ Fax _____ E-mail _____

Fee: \$175.00

Payment by: Check (Payable to Auburn University)

Visa MasterCard American Express Discover P.O. # _____

Credit Card # _____

Security Code _____ Expiration Date _____

(VISA/MC/DISC - three digit code on back; AMEX - four digit code on front)

Cardholder's Name _____

Signature _____

Return Registration Form and Payment to:

Alabama Transportation Assistance Program
202 Ramsay Hall
Auburn University, AL 36849-5375
Phone 1-800-446-0382 or 334-844-4370
Fax 334-844-5715
www.eng.auburn.edu/atap

Auburn University is an Equal Opportunity Educational Institution/Employer
2019-ATAP



Non-Profit Org.
U.S. Postage Paid
Permit #530
Montgomery, AL

Auburn University
Alabama Transportation Assistance Program
Samuel Ginn College of Engineering
202 Ramsay Hall
1161 W. Samford Ave., Bldg. 8
Auburn University, AL 36849-5375

Runoff Control with National Stormwater Calculator

Huntsville, May 14, 2019
Mobile, May 29, 2019

Pelham, May 15, 2019
Montgomery, May 30, 2019