



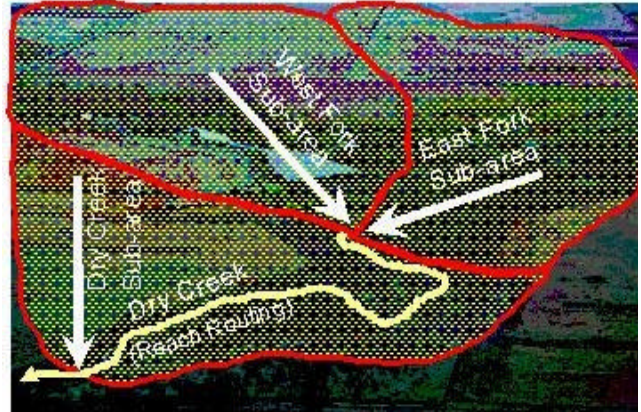
Present

A Two-Day, Hands-On Workshop

TR 20 for WINDOWS

Catonsville Campus,
Community College of Baltimore County
April 28-29, 2009

Sponsored by Maryland Society of Professional Engineers
In Association with the Natural Resources Conservation
Service, USDA



Introduction

The TR-20 hydrologic model and program together with the TR-55 program are among the most widely used computational tools for hydrologic analysis and stormwater management computations in Maryland and throughout the United States. The Natural Resources Conservation Service (NRCS) of the US Department of Agriculture (USDA) has recently released a Windows-based version of the TR-20 model and will present a two-day workshop of the WIN TR-20 model and program in a joint effort with the Maryland Society of Professional Engineers and the Maryland Section of the American Society of Civil Engineers.

Who Should Attend

This workshop will be useful to any one involved in the use or review of the TR-20 model data. This includes

- Local, state and federal government administrators and regulators
- Developers, builders, contractors
- Land use/development planners
- Surveyors
- Civil/environmental engineers
- Landscape architects
- Environmental professionals/consultants
- Environmentalists
- Interested citizens

Format

This two-day lecture/participation course will be a hands-on workshop. Participants are encouraged to bring along a laptop so that they can work on sample problems provided in the workshop. Participants may be requested to work in groups of 2 or 3 depending on the size of the class. Participants can download the WIN TR-20 program directly from the NRCS website at: <http://www.wcc.nrcs.usda.gov/hydro/hydro-tools-models-wintr20.html>. In addition, the course notebook will include a CD with the program, training materials, and example problems. Participants can register for the first day or both days of the workshop. The first day will cover the basic applications of the program as well as an overview of the advanced features of the program. The second day will focus on the advanced features of the program.

Instructors:

The primary instructor for the workshop will be William H. Merkel, P.E. He has over 32 years of experience in NRCS as a Hydraulic Engineer. He has worked in California, Nevada, Texas, Ohio, and Maryland. He currently supervises a staff of engineers who are engaged in a wide variety of technology development arenas such as rainfall/runoff relationships, water quality modeling, stream restoration, and GIS applications in hydrology and hydraulics. He has an MS, Civil Engineering, from MIT and a BS, Civil Engineering, University of Cincinnati. Mr. Merkel will be assisted by a number of other staffers from NRCS.

MDSPE 19 Hamill Rd., Unit E, Baltimore, MD 21210 ~ Phone 410.675-8967 ~ Fax 410-505-1511 ~ E-mail mdspe@comcast.net

TR 20 for WINDOWS

April 28-29, 2009 ? Catonsville Campus, CCBC

COURSE OUTLINE:

April 28

8:30 – 8:45 Intro/Overview of WinTR-20
 8:45 – 10:15 Basic Input / Output of WinTR-20
 10:15 – 10:30 Break
 10:30 – 11:30 Workshop #1 – Basic Input/ Output for WinTR-20
 11:30 – 11:45 Review Workshop #1 – Basic Input/Output for WinTR-20
 11:45 – 12:45 Lunch
 12:45 – 02:15 Advanced Features of WinTR-20 (Alternative, Land Use Details, Time of Concentration, Divert, Flow Duration, Time Analysis, DUH, custom rain table, and Input Hydrograph)
 2:15 – 3:15 Workshop #2 – Alternative Analysis with WinTR-20
 3:15 – 3:30 Break
 3:30 – 3:45 Review Workshop #2 - Alternative Analysis with WinTR-20
 3:45 – 4:15 Convert old TR-20 to New Format WinTR-20
 4:15 – 5:00 Muskingum-Cunge Flood Routing Procedure

April 29

8:00 – 8:45 Import HEC-RAS Cross Section Data to WinTR-20
 8:45 – 9:30 Workshop #3 – Import HEC-RAS Cross Section Data to WinTR-20
 9:30 – 9:45 Review Workshop #3 – Import HEC-RAS Cross Section Data to WinTR-20
 9:45 – 10:00 Break
 10:00 – 11:30 Advanced Features of WinTR-20 (Demo of each) Divert, Flow Duration, Time Analysis, DUH, custom rain table, and Input Hydrograph
 11:30 – 12:30 Lunch
 12:30 – 1:30 Workshop #4 – Divert with WinTR-20
 1:30 – 1:45 Review Workshop #4 – Divert with WinTR-20
 1:45 – 02:45 Sensitivity and Calibration
 2:45 – 3:00 Break
 3:00 – 4:45 Introduction and Demonstration – NRCS Geo-Hydro
 4:45 – 5:00 Q & A

~ **Time:** Registration is from 8:00-am

~ **Pre-register:** By mail: 19 Hamill Rd., Unit E., Balto, MD 21210
 By e-mail: mdspe@comcast.net

By phone: 410-675-8967
 By fax: 410-505-1511

~ Tuition Fees

Early Bird (registration received by April 20)
 Regular (registration received before May 14)
 Late (registration received on or after May 14)

	MEMBER	NONMEMBER
Early Bird	\$499	\$ 599
Regular	\$599	\$ 699
Late	\$699	\$ 799

~ **Location:** This workshop will be held in Room H308A in H Building on the Catonsville Campus of CCBC, 801 S. Rolling Rd., Baltimore, MD 21228

~ **Walk-in registration:** If space is available, you may register at the door. **But if you have not pre-registered**, you should confirm that space is available and that there have been no schedule changes by phone the day before the seminar. 410-675-8967.

~ **Refund Policy:** We understand your schedule maybe subject to unavoidable changes. We will be happy to honor substitutions. You may receive a full refund if you cancel your registration at least 7 days in advance of the seminar.

~ **Format:** This seminar will be presented in a live, interactive, lecture-style program.

~ **Inclement Weather:** In the event of inclement weather, check the college website at <http://www.cbcemd.edu>

~ **CPC Credits:** Approved for 8 Maryland Surveyor Category A Credits by the Mid-Atlantic Surveyor Education Institute

WIN TR20 WORKSHOP REGISTRATION FORM

**MAIL, FAX OR E-MAIL REGISTRATION FORM TO: Maryland Society of Professional Engineers
 19 E Hamill Rd., Balto, MD 21210 ~ Phone 410-675-8967 ~ Fax 410-505-1511 ~ E-mail mdspe@comcast.net**

NAME _____
 JOB TITLE _____
 EMPLOYER _____
 ADDRESS _____
 CITY _____ ST _____ ZIP _____
 PHONE _____ FAX _____
 EMAIL ADDRESS _____

Member of: ASCE Member Knumber _____

Are you a P.E.? yes

A limited number of scholarships are available for NRCS personnel. Call 410-675-8967 or email mdspe@comcast.net

Check is being mailed payable to MDSPE Purchase Order No. _____ Check enclosed _____ **Total:** _____

