The Urban Watersheds Research Institute is proud to present a workshop and training seminar on:

Detention Pond Sizing, Analysis and Design

When: March 12 and 13, 2009 from 8:30 a.m. to 5:00 p.m. each day
(Please arrive 15 minutes early on the first day to register and have your software installed)

Where: City of Aurora Municipal Building
15151 E. Alameda Parkway, Aurora.

Cost: $595.00 (includes class notes and software)

Faculty: James C.Y. Guo, Ph.D., P.E., and Ken A. MacKenzie, P.E.

CEU's: You will be eligible to receive 1.6 CEU's or 16 PDH's for this course

What Will You Learn?

Urbanization always increases stormwater runoff and potential for floods. Stormwater storage facilities help to mitigate the potential hazards caused by this increased runoff. In this course you will learn:

1) Hydrologic principles,

2) Layout of detention basin,

3) Sizing and design procedures using modified FAA method,

4) Hydrograph routing method for estimating detention volume,

5) Pre-shaping of detention basins and developing grading plans,

6) Sizing and design of outlet structures, and

7) Performance evaluation using reservoir routing.

This Course Will Cover:

The lectures and work sessions are designed to teach how to design a storm water detention system using the latest version of the computer model, UD-DETENTION. This model consists of eight Excel sheets developed for:

1) Calculating the required storm water detention volume,

2) Estimating the basin geometry using triangular, rectangular, or elliptical detention basin shapes,

3) Developing the final stage-storage relationships, and

4) Conducting reservoir routing through the basin being designed.

The outlet structure can consist of multiple orifices, weirs, risers and culverts. The design procedures used in UD-DETENTION comply with the design protocols recommended for practically all urban areas in United States, including most municipalities in Colorado. The workshop sessions provide hands-on operations and how to use various pond design techniques in UD-DETENTION, guidance on how to prepare the input parameters and how to interpret the software outputs.

Software (Installed on Your Personal Laptop) and Laptop Computers Provided:

A limited number of laptop computers will be available in the classroom. You are encouraged to bring your own Laptop if it is loaded with Excel 97, or higher, and Windows 98 SE, or higher operating system. Needed software package(s) will be provided for installation. Please indicate on the registration form if you will bring a laptop, or will need one provided.

Instructors:

Dr. James C.Y. Guo, PhD, P.E. is a professor at University of Colorado at Denver. In addition to teaching engineering hydrology and hydraulics since 1982, he is active in applied research and is a practicing engineer. Dr. Guo's research work has been referenced in number of City and County drainage manuals in United States and refereed journals and he also brings to the class cutting edge technology in detention pond design and outlet structure hydraulics.

Ken a. MacKenzie, P.E. is the Manager of the Master Planning Program at Urban Drainage & Flood Control District. He is the author of the UD-DETENTION spreadsheet model. Mr. MacKenzie has been involved in the design, construction, and modeling of many flood detention facilities and has many years of experience in general drainage design and construction.

Colorado is a great place to visit in March:

This class will be held at the peak of the ski season in Colorado. If you are a skier/snowboarder or would like to learn either of these, this is the time to be in Colorado. March is usually the snowiest month in the mountains, however, Mother Nature can be fickle and we cannot guarantee that you will find the best conditions when you are here. Regardless, when it is not the best, it is still great.

Register Now!

To register *CLICK HERE*

Class sizes are limited, so we recommend you register early.

The size of the classroom will be limited to provide more direct contact with the instructors. To assure a space, fill out the enrollment form and send it to the address on the form as early as possible. For more information, call us at 720-873-0172, or e-mail us at info@urbanwatersheds.org.