



Wetland Hydrology and Water Budgeting

New Research Results on Wetland Hydrology & Water Budget Modeling

Date/Location/Time

April 18, 2017

8:30 am - 3:30 pm

Wetland Studies and Solutions

5300 Wellington Branch Drive, Suite 100

Gainesville, VA 20155

Directions

<http://wetlandstudies.com/about-wssi/map-directions.html>

Registration will close on April 14, 2017

Register with Stefanie Dryden, sdryden@wetlands.com
or (703) 679-5600

Registration is free, but suggested donation for lunch and snacks is \$25.00

Virginia Tech is sponsoring the workshop and can provide 0.55 CEU's. Cost is \$35.00. If interested, please coordinate with Stefanie during registration.

Description

Over the past decade, an interdisciplinary team of scientists from Virginia Tech (VT), Old Dominion University (ODU) and the University of Kentucky have been supported by the Peterson Family Foundation (PFF), Resource Protection Group, Inc. (RPG), and Wetland Studies and Solutions, Inc. (WSSI) to study a wide range of issues related to created wetland hydrology and water budgets. In addition to a range of studies focused on developing more accurate methods for monitoring wetland hydrology, the team has developed a new free software tool (Wetbud) for estimating wetland water budgets using available weather data and site-specific topographic, soil and geohydrologic data, coupled with mass balance mathematics. Wetbud is primarily intended as a planning tool for use in the design of created wetlands but it can also be applied to native wetlands where the required input parameters can be specified. Wetbud can be run in its *basic* form where wetland topography, soil parameters and groundwater flux are simplified, or in *advanced* form, where these parameters are included in a more complex 3-D approach via integration of MODFLOW.

The goals of this program are to provide attendees with (1) an overview of recent wetland hydrology and water budget research results and (2) provide hands-on overview training on Wetbud. Participants who bring their own laptops (with Windows 7 or 10 OS) will be provided with the program files and pre-loaded site-specific scenario/project files necessary to run introductory water budget model applications during the latter portion of the afternoon session.

Instructors

- W. Lee Daniels, PhD – Virginia Tech, Department of Crop and Soil Environmental Sciences
- Steve Stone, MS - Old Dominion University
- Tess Thompson, PhD – Virginia Tech, Department of Biological Systems Engineering
- Rich Whittecar, PhD – Old Dominion University, Department of Ocean, Earth and Atmospheric Sciences

Topics of Discussion

- Current issues in created/restored wetland hydrology
- Influence of monitoring well design/sensor on water levels
- Analyzing historic water level fluctuations (Wem)
- Understanding surface water contributions
- Background and Introduction to Wetbud
- Hands-on Demonstration of Basic Wetbud Models

Hotel

Corporate discount available if you mention WSSI at the Hampton Inn Gainesville-Haymarket
7300 Atlas Walk Way, Gainesville, Virginia, 20155. Phone: 703-753-1500

<http://hamptoninn3.hilton.com/en/hotels/virginia/hampton-inn-gainesville-haymarket-WASGVHX/index.html>