Application of Soil Water Budgets to Landscape Hydrology Analysis. (S05-vepraskas102447-Oral)

Authors:

- G.S.Kreiser - *NC State University*
- M.J.Vepraskas - *NC State University*
- R.L.Huffman - *NC State University*

Abstract:

Water budgets compare inputs and outputs of water to determine how the amount of water stored in a soil changes over time. This study developed a water budget to evaluate a wetland restoration plan as well as to predict off-site impacts of the restoration. Precipitation is the major water input for the drained Carolina Bay wetland being restored, while the main outputs are currently evapotranspiration and surface outflow through ditches. Groundwater inflow and outflow were estimated by difference. Monthly water budgets done to-date show that groundwater inflow is greater than expected and that the drained Bay acts as a discharge area. The restoration plan will convert the Bay into a flowthrough wetland and may raise water tables in the surrounding region.

Corresponding Author Information:

Michael Vepraskas
NC State University
Soil Science Dep., Box 7619
Raleigh, NC 27695-7619

phone: 919-515-1458
fax: 919-515-2167
e-mail: michael_vepraskas@ncsu.edu

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