Seminar

Tuesday, October 8

NSERL (Bldg. SOIL)
275 S. Russell Street
Large Conference Room

10:00 a.m. – 11:00 a.m.

"Nonpoint source pollution control in watersheds in the Mississippi River Basin and the Great Lakes Region"

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Abstract:

The growing global population increases the conversion of natural lands into agricultural and urban land uses. Human activities and land use changes have adverse impacts on water balance and quality. Flow discharge control and nutrient reductions have become top priorities due to high-profile harmful algal blooms and hypoxia in many water bodies, including Lake Erie and the Gulf of Mexico. This presentation will cover the following objectives: (1) evaluate growth of bioenergy crops and their impacts on water quantity and quality in a typical tile-drained watershed in the Mississippi River Basin using the Soil and Water Assessment Tool; (2) evaluate the impact of various Best Management Practices on crop yields and nutrient load exports across the Western Lake Erie Basin (WLEB) using the Nutrient Tracking Tool; (3) produce Climate Impact Indicators in the Lake Erie region using 19 General Circulation Models; and (4) predict the changes in severe harmful algal blooms occurrence in the WLEB by mid-century (2041-2060). This presentation will also discuss future research plans about development, improvements, and applications of the Water Erosion Prediction Project (WEPP) model/interface.