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**Changes in Use, Crop Types, Tillage Practices in the Maumee Watershed,  
Ohio: 2005-2007**

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Abstract:

The Maumee River watershed in Ohio and Indiana measures over 4,000 square miles in size and is the largest drainage basin that discharges into the Great Lakes. The watershed is approximately 70% rural land uses with several major urban-industrial cities, including Fort Wayne and Toledo located along the river. Many water quality concerns are present, especially non point rural runoff that contributes significant amounts of sediment, nutrients and contaminants into the Maumee River. In 2005, the USDA Natural Resources Conservation Service (NRCS) entered into a five year agreement with the Geographic Information Science & Applied Geography (GISAG) Research Center at the Department of Geography and Planning at the University of Toledo, Ohio. The work performed will assist NRCS in undertaking sub-watershed rapid resource assessments, watershed and area planning, farm conservation planning, and delivery of conservation technical assistance and conservation cost-share programs authorized by the 2002 Farm Bill. The tasks undertaken with this project include annually determining land cover and crop rotations via remote sensing techniques. Landsat data and field surveys have been completed in spring and early summer each year in the period 2005 to 2007. The aim is to document the area coverage of the major field crops (corn, soybeans, and wheat) and to determine the level of conservation tillage practices employed within the watershed. The results of the study are important tools in assessment rural land uses and their impacts on water quality within the basin and to assist in the direction of land management approaches.

Impact Statement:

Development of geospatial tools to assess land use conditions in order to determine water quality impacts and mitigate inputs of sediments and contaminants.

Category: Watershed Assessment and Restoration  
Type of Presentation: Poster Presentation