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Simulation Modeling and Cartographic Approaches for Prioritizing Non Point Source Subwatersheds in Arkansas

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Abstract:

Limited availability of resources for implementation of watershed management programs is the fact of life. This realization has forced watershed managers to look for strategies that allow them to identify critical nonpoint source (NPS) subwatersheds for maximizing return on the limited resources. Prioritization of subwatersheds based on some NPS criteria (sediments, nutrients etc.) is expected to help managers decide about the order for taking up watersheds for treatment and for planning conservation measures. This study uses L'Anguille River Watershed (LRW), located in the northeastern Arkansas, to showcase the application of Soil and Water Assessment Tool (SWAT) and Geographic Information Systems (GIS) for identifying priority subwatersheds using three different decision criteria.

Impact Statement:

The modeling and cartographic approaches helped in prioritizing subwatersheds in L'Anguille River Watershed. This information is useful for watershed managers for developing policies for the restoration and maintenance of water quality in the L'Anguille River watershed.

Category: Watershed Assessment and Restoration

Type of Presentation: Poster Presentation