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**IMPACT OF LIGNOCELLULOSIC BIOFUEL CROPS ON WATER QUALITY IN PRIORITY
SUBWATERSHEDS OF L'ANGUILLE RIVER WATERSHED**

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ABSTRACT: Analyzing the impact of biofuel crops on hydrology and water quality is of interest in watersheds containing impaired water bodies. This study uses Soil and Water Assessment Tool (SWAT) model to analyze the long-term impact of lignocellulosic biofuel crops on water quality in marginal lands of L'Anguille River Watershed (LRW) in eastern Arkansas. Annual sediment and nutrient loadings from six different land use changes were compared with baseline model simulations to assess the reduction in loadings at the downstream outlet of the watershed. These results could inform policy makers about various ecological options to help in decision making.

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