
USE OF MISSISSIPPI RIVER ALLUVIAL AQUIFER DECLINE RATES FOR ALLOCATION OF EQIP FUNDS

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The Farm Security and Rural Investment Act of 2002 reinstated the Environmental Quality Incentives Program (EQIP) to provide a conservation programs that promote agricultural production and environmental quality as harmonious goals. EQIP provides financial and technical assistance to producers who implement structural and management conservation practices on agricultural land. The Mississippi Natural Resources Conservation Service (NRCS) identifies resource concerns and assessments that determine the focus of EQIP funds allocated to the state. In 2003 \$11 million was allocated to Mississippi for conservation practices and an additional \$1.1 million was allocated for the specific concern of groundwater conservation. The water quantity resource concern is concentrated primarily in the north and central portion of the Mississippi Delta. To allocate the \$1.1 specifically for water quantity conservation, certain areas were targeted based on the decline rate of the Mississippi River Valley Alluvial Aquifer (MRVA), which ranged from 0.13 ft to 0.88 ft loss per year. Based on the decline rate of the MRVA, the region was divided into quartile and assigned a severity index (weighting factor) ranging from 1, for the least sever decline to 4, for the most severe decline. To determine the allocation per acre, the total number of acres in each region was multiplied by the severity index, the products totaled, and divided by 1.1 million. This resulted in \$0.62, \$0.42, \$0.31, and \$0.16 per acre for region 4, 3, 2, and 1, respectively. Because no definitive boundaries for ground water planning units exist, to plan for effective distribution of the allocated funds, the regions were merged with five major surface watershed planning units, including the Upper Sunflower, Lower Sunflower, Bogue Phalia, Steele Bayou, Yazoo River, and Quiver River. Based on the number of acres in each region that fell within the watershed planning unit a total allocation amount was determined for each planning unit. However, because EQIP funds are distributed and allocated through county offices, the watershed planning units were subdivided by county, with a specific amount being allocated to each county for a specific watershed.