

# An Information and Assessment Project for Improving EQIP Performance

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## **Cooperators:**

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## **Goals:**

- To design and make available an EQIP implementation website that summarizes the spatial distribution of funded EQIP applications and makes available a public version of Indiana's ESCORE for 2004-2007.
- To improve producers' abilities to make choices while making EQIP transparent to the public.
- Estimate and summarize the field level changes in nutrient losses obtained from GLEAMS for the applicable conservation practices specified in EQIP.
- Develop and test a decision model that incorporates water quality modeling as part of the selection criteria for the EQIP signup

## **Statement of Problem:**

The Environmental Quality Incentives Program (EQIP) promotes the dual objectives of profitable agricultural production and environmental protection by cost-share funds and incentive payments to ranchers and producers who are willing to apply approved conservation practices. The signup process was insufficient; giving need to a more effective or relevant signup process and program administration. The current incentive system uses cost-share funds and incentive payments which are allocated on resource concerns and scoring rules. The scoring rule assigns points based on detection of one or more resource concerns and treatment.

The National Resources Conservation Service (NRCS) in Indiana collaborated with Purdue University and developed ESCORE: a secure, web-based program for entering, scoring, ranking and storing EQIP applications. ESCORE uses Geographic Information System (GIS) technology and aims to better quantify the environmental impact calculations for the 15,000 fields of the 4,400 eligible EQIP producers. There is need to conduct analyses to quantify the environmental benefits attained when using the existing incentive system.

## **Current Activities:**

The National Resources Conservation Service (NRCS) used the EQIP website to collect applicants and the practices they implement for the 2005 program. A demonstration website is available to the public at <http://pasture.ecn.purdue.edu/~eqip>.

The EQIP site currently assigns a score to each applicant. The allocated score was then used to determine the applicants to be funded.

## **Recent Publications:**

- Thomas, M. A., B. A. Engel, M. Arabi, T. Zhai, R. Farnsworth, and J. R. Frankenberger. 2007. Evaluation of nutrient management plans using an integrated modeling approach. *Applied Engineering in Agriculture* 23 (6):747-755.
- Tong Z., D. Ozgoc-Caglar, M.A. Thomas, B.A. Engel, R.L. Farnsworth. 2007. Improving EQIP nutrient management BMP selection using GLEAMS. Submitted to Journal of the American Water Resources Association.
- Thomas, M. A. 2006. Evaluation of nutrient management plans using an integrated modeling approach. MS thesis, Agricultural and Biological Engineering Department, Purdue University, West Lafayette, Indiana.