

## **Social-Economic Issues Related to the Iowa Nutrient Reduction Strategy**

**Issue:** Widespread adoption of conservation practices identified in the Iowa Nutrient Reduction Strategy is needed to show progress in improving Iowa's water quality. To achieve this adoption, a better understanding is needed of both the economic and non-economic factors that motivate farmers and landowners to voluntarily adopt practices.

**Objective:** A social-economic research team will conduct three projects that will provide useful information to the state of Iowa's nutrient reduction efforts. One objective is the development of a long-term socio-economic study to assess the key drivers of adoption decisions and improved water quality in watersheds.

**Approach:** The first project will analyze existing data to develop a more complete understanding of Iowa farmers' current management strategies and attitudes toward innovative approaches to managing nutrients and soil health. The primary data set will be the annual Iowa Farm and Rural Life Poll at Iowa State University.

The second project will use economic tools of non-market valuation (the estimation of the value of goods and services that are not routinely bought and sold, such as water quality) to estimate the benefits of water quality improvement that result from nutrient reduction strategies. Where possible, the benefits of additional ecosystem services, such as carbon benefits and wildlife habitat, also will be included.

The third project will study the adoption decisions of farmers within the priority watersheds in Iowa. The research will compare four geographically different HUC 12 agricultural watersheds, working with about 10 farmers within each watershed. Cooperating farmers, with assistance from a watershed specialist, will gather economic, agronomic and productivity data on their farm enterprises. Performance measures for phosphorus and nitrogen will provide feedback to the farmers to illustrate the effects of their management practices.

### **Investigators:**

Cathy Kling  
Distinguished Professor, Economics  
Iowa State University

Lois Wright Morton  
Professor, Sociology  
Iowa State University

J. Gordon Arbuckle  
Associate Professor, Sociology  
Iowa State University

Chad Ingels  
Extension Program Specialist  
Iowa State University