



**Title:** Integration of Spatial Technologies to Modernize Resource Management in Alabama

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**Organization:** Auburn University

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**Year of Funding:**

**Theme:** Water Conservation and Agricultural Water Management

**Situation:** Geographic Information System (GIS) technologies have matured to enable watershed managers, farm managers, and community representatives (among others) to apply cutting edge technologies to produce solutions to age-old problems. Alabama has been developing techniques to communicate solutions to clients statewide.

**Objectives:** Our objectives have been to develop spatial technologies to 1. Identify problems and potential problems associated with activities on the land surface (and subsurface); 2. Promulgate information to Extension Service representatives for effective planning and management; 3. Educate citizens, resource managers, farmers, policy makers, and others on the use of spatial data.

**Methods:** This poster will examine four specific spatial applications -- Nonpoint Source Pollution Assessment; 2. Precision Agriculture; 3. Farm Management Planning; and, 4. Watershed manager education. Specific process and data outputs were developed for each application.

**Partnerships:** Strong communication ties were developed among product consumers (e.g., resource managers and farmers); Extension Service field representatives, and Auburn University GIS managers. Alabama has developed very strong community based volunteer environmental monitoring network from implementing this system.

**Research:** CSREES/ACES Water Quality Program has used information from the latest data providers, processed the data with leading edge geospatial processes, and utilized the latest web data distribution tools for education and outreach.

**Resources:** Web based communication networks among all of Extension Service were exploited to maximize communication efficiencies.

**Results:** Outputs include maps on demand for specific management areas, data processing tailored for the project need, and improved stature of Extension Service staff.



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