

Moving Poultry Litter: Water Quality Incentive Design

A Multi-Disciplinary Approach

USDA-CSREES National Water
Conference

St. Louis, MO

February 10, 2009

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Center



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Protecting Water Quality with Incentives for Litter Transfer in Georgia



Final Report

Principal Investigators

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Monday, September 15, 2008

Support for this project provided by:
GSWCC

&

USDA/NRCS through a
Conservation Partnership Initiative Grant



Available on-line:

<http://www.agp2/aware>

-or-

<http://www.h2opolicycenter.org>

Project Overview

- Funding from NRCS Conservation Partnership Initiative and Georgia Soil and Water Conservation Commission
- Project Team
 - Georgia Water Planning and Policy Center: **Kristin Rowles and Sam Collier**
 - University of Georgia College of Agricultural and Environmental Sciences:
 - **Mark Risse and Melony Wilson**, Biological and Agricultural Engineering
 - **Jeff Mullen**, Agricultural and Applied Economics
 - **Dave Kissel**, Crop and Soil Sciences

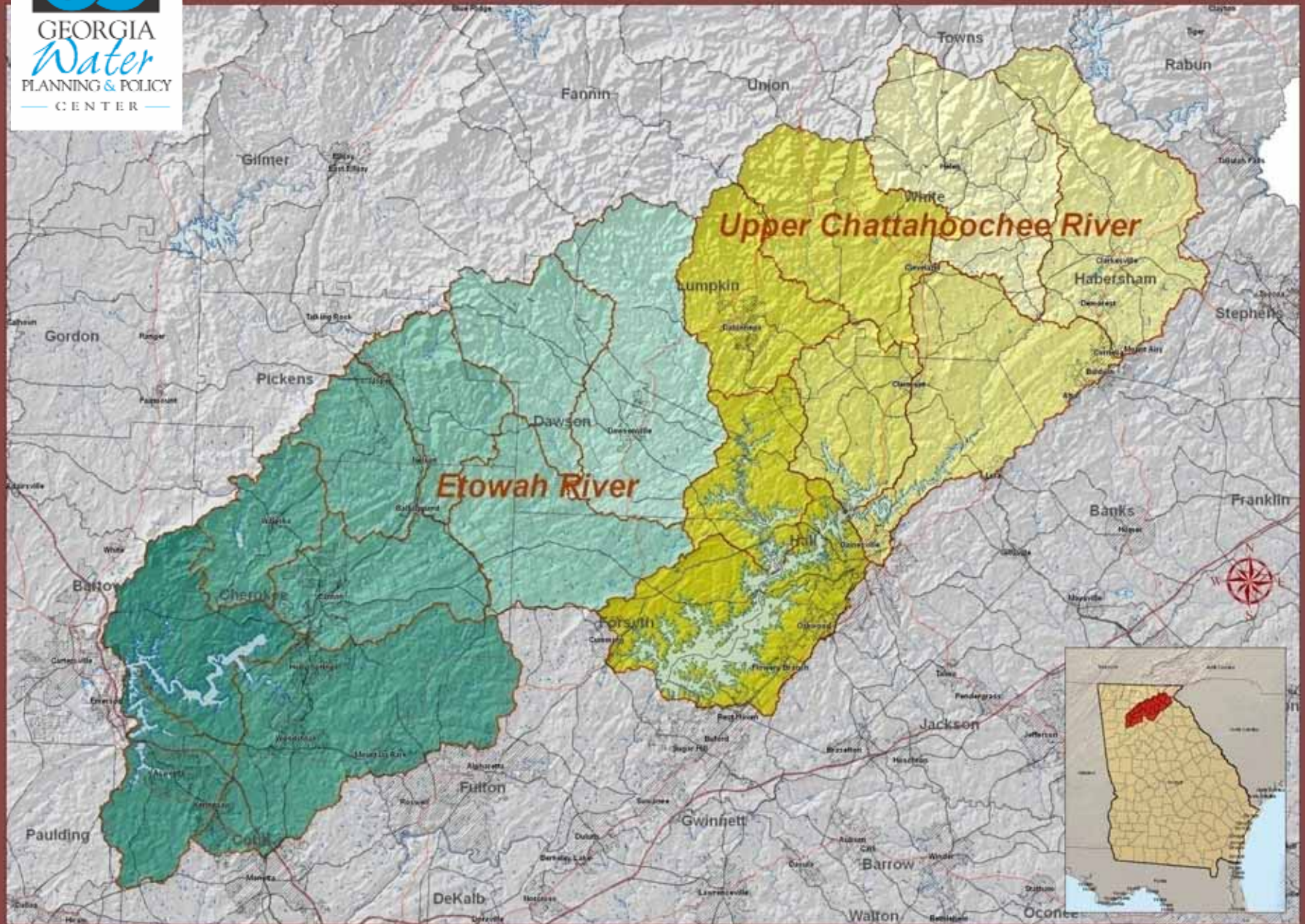
Georgia Poultry

- Top state for broiler production: 1.38 billion broilers per year (U.S.: 8.9 billion)
- Rapid growth in Georgia: 350% increase in production since 1970
- Accounts for >50% of agricultural cash receipts in Georgia
- 1.55 million tons of broiler litter produced per year in Georgia (10.1 million in US)



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Lake Lanier and Allatoona Catchment Basins



Miles

Project Objectives

1. Develop partnership to support implementation of litter transfer program in Georgia
2. Conduct policy and economic research to support effective policy design and implementation
3. Conduct outreach to build support for litter transfer program implementation

Project Components

- Stakeholder involvement
- Economic analysis
- Producer survey (litter users)
- Policy review (other states)
- Feasibility exploration (water quality trading)
- Evaluation of value added processing opportunities
- Recommendations

Stakeholder Involvement and Outreach

- Workgroup: 28 members
- Three outreach workshops
 - Other states
 - Row crop producers
 - Final workshop
- Replacement value of litter worksheet

What should be Public Sector Role be?

- Environmental protection
- Demand Side intervention: Marketing, education
- Supply Side intervention: Transport subsidy, environmental subsidy, technology



General Recommendations

- We recommend an approach focused on facilitating market communication, rather than transport incentives.
- We urge support for alternative uses of litter and for exploration of alternative means of addressing nutrient over-enrichment, including performance-based incentives and water quality trading.

Water Quality Trading

Poultry litter transfer is a relatively low cost method of removing nutrients from a watershed.

Water quality trading is viable alternative way to sustain this practice when phosphorus regulation is sufficiently strict to drive interest in trading.

Alternative Uses

Strong interest in the development of alternative uses of poultry litter is present in North Georgia

Government policies such as streamlined regulatory processes and economic development incentives could facilitate more rapid development of such facilities.

Alternative Subsidy?

Our economic model indicated that strictly applying litter at P based rates would cost the farmers in the nutrient excess counties an estimated \$13.2 million annual in purchased nitrogen fertilizers.

Financial and educational inducements to use commercial nitrogen fertilizer or legume planting (instead of litter application at N based rates) will support increased litter transfer.

Marketing – Demand Side Interventions

- Increase extension efforts on the replacement value of litter
- Intensify efforts to increase use of the poultry litter exchange website
- Consider hiring a market-maker to facilitate the distribution of information and the development of market relationships

Stakeholders

The partnership developed by this project is a group of committed stakeholders. Their willingness to support litter transfer should be capitalized on, perhaps through continued meetings as a steering committee that can provide feedback and perspectives and maintain a communication and marketing network.



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