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## Who We Are

Inspired by a shared passion for conservation, NRCS collaborates with farmers, ranchers, communities, and other individuals and groups to protect natural resources on private lands.

Working side-by-side with these customers, we identify natural resource concerns, such as water quality and quantity issues, soil erosion, air quality, wetlands and wildlife habitat, and develop unique conservation plans for restoring and protecting resources.

Funds to implement these plans are made available in Farm Bill programs that share the cost of conservation for the benefit of the farm, the watershed, and the community. Conservation easement programs, also in the Farm Bill, provide long-term options.

NRCS helps Georgia and the Nation balance economic goals with the needs of the environment—ensuring sustainably productive lands that supply food, fiber, forest products, and energy for all citizens.



Photo by Mary Ann McQuinn, NRCS

Variable rate irrigation (VRI) is a cutting-edge, precision agriculture system being implemented in Georgia to reduce agriculture water use by delivering only the water necessary to grow a crop. Using Global Positioning System technology, VRI effectively removes irrigation from non-crop areas created by variations in soil type and field topography, as well as a result of pivot overlap.

## Reducing Agricultural Water Withdrawal

Georgia is the largest agricultural state east of the Mississippi with a farm gate value of \$11.9 billion. Coupled with a burgeoning population, the demand for fresh, clean water is increasingly competitive. Georgia NRCS, in partnership with the Flint River Soil and Water Conservation District, The Nature Conservancy and the University of Georgia have pioneered the use of high-tech irrigation techniques to reduce water use—with amazing results.

- \*The combined efforts of NRCS and the Partnership are yielding impressive results, conserving in a dry year an average of 15 billion gallons of water annually – a quantity equal to the annual water use of a city the size of Augusta, Georgia.
- \*Since 2004, Georgia NRCS-supported pilot projects have deployed advanced conservation practices on more than 10,000 acres of irrigated land.
- \*The 2009 and 2010 Agricultural Water Enhancement Program has offset adoption costs by over \$3.5 million dollars via nearly 400 contracts. To date, our work has impacted more than 200,000 acres of irrigated land in Georgia. Practices include:
- \*Variable Rate Irrigation (VRI) yields an average reduction in water use of 15% by removing non-crop areas from irrigation.
- \*Sod-Based Rotation (SBR) yields an average reduction in water use of 30% by increasing the water holding capacity of the soil and incorporating the many benefits of conservation tillage.
- \*Low Pressure Drop Nozzle Retrofits with end gun shut off (LDR) yields an average reduction in water use by 22.5% by repairing leaks, applying irrigation more efficiently and controlling end gun operations.

## Keeping Pollution and Sediments out of Rivers and Streams

**Issue:** Keeping Georgia's rivers and streams free from agricultural waste and sediments.

**What NRCS GA is doing:**

Poultry is Georgia's No. 1 commodity product, comprising nearly 41% of the total farm gate value for the state. In addition, horses, beef and dairy are among the top 10 agricultural commodities with many fields and pastures located adjacent to rivers and streams. In 2010, NRCS assisted 130 poultry cooperators with the construction of waste management facilities and dead bird composters at a cost of \$2.5 million. Four hundred and thirty-four livestock participants utilized \$1.55 million to install heavy use areas. Heavy use areas provide protected water sources and, when combined with fencing, keeps livestock out of streams. Heavy use areas are designed to NRCS standards and specifications which assist in encouraging the animals to drink and then move away from the area—thereby reducing soil erosion.

Program used: (CTA), (EQIP)



Providing an alternative to drinking out of the river, heavy use areas are designed to feed large quantities of animals without causing soil erosion and degradation of water quality.

## Giving Wildlife a Chance: Longleaf Pine Initiative

**Issue:** Restoring Longleaf Pine Forests in Georgia

**What NRCS GA is doing:**

Georgia received \$5 million to help restore Longleaf pine forests throughout its native habitat range. Longleaf pine forests once covered millions of acres throughout the Southeastern United States. Today, only a few thousand acres of this vital habitat remains.

Longleaf pine ecosystems can contain as many as 300 different species of groundcover plants per acre and approximately 60 percent of the amphibian and reptile species found in the Southeast.

Additionally, this forested habitat is home to at least 122 endangered or threatened plant and animal species including the fox squirrel, northern bobwhite quail, red-cockaded woodpecker and gopher tortoise.

Program used: (CTA), (WHIP)



Longleaf pine habitat is ideal for the Gopher tortoise—an endangered species.

## Protecting Life and Property with Watershed Rehabilitation

**Issue:** Rehabilitating Aging Dams to Protect Current Use

**What NRCS GA is doing:**

Since 1953, 357 project dams have been built in Georgia. Currently, 189 of these dams are classified as "high hazard," indicating that a potential loss of life could occur if the dam were to fail. Preliminary estimates indicate that \$120 million will be needed to upgrade these structures and ensure compliance with current dam safety regulations.

Since 2002, NRCS-Georgia has secured \$16 million under the Watershed Rehabilitation Program to upgrade 11 watershed dams. Additionally, 55 dams have been analyzed to determine the extent of downstream hazards.

Program used: (CTA), (WFPO, Watershed Rehabilitation)



An aerial shot near Lawrenceville showing development since a watershed dam was constructed.

# Conservation Technical Assistance (CTA)

*is the core approach NRCS has used successfully for 75 years to reach out to all American farmers and ranchers. Through CTA America invests in Conservation by investing in American farmers and ranchers, and the technical assistance they need to care for the 70% of our land, water and other natural resources that are in their hands.*

*CTA is simply about helping people. NRCS employees provide conservation options, recommendations, planning, and engineering assistance to individual farmers, ranchers, local governments, and urban landowners. This prepares the way for using Farm Bill and other conservation funding by providing—*

## Technical Planning and Design:

- Agronomy
- Soils
- Engineering
- Rangeland
- Forestry
- Wetlands

## Project Coordination:

- State Environmental Regulation
- Archeological Permits
- Necessary Environmental Consultations
- Professional Coordination

### **Cost Share Programs for Working Lands:**

**Environmental Quality Incentives Program (EQIP)**—assistance for a broad spectrum of conservation practices that promotes agricultural production, forest management and environmental quality as compatible national goals.

**Agricultural Water Enhancement Program (AWEP)**—a subprogram of EQIP specific to water conservation and quality through partnered efforts.

**Cooperative Conservation Partnership Initiative (CCPI)**—a partnered program that uses 6% of EQIP, WHIP and CSP funds for an integrative, focused approach.

**Wildlife Habitat Incentive Program (WHIP)**—improves wildlife habitat on private agricultural, forest and Tribal lands.

### **Easement and Long-Term Rental:**

**Farm and Ranch Lands Protection Program (FRPP)**—helps keep farm and ranch land in agriculture.

**Wetlands Reserve Program (WRP)**—restores wetlands and wetland habitat on marginal ag land.

**Grassland Reserve Program (GRP)**—helps landowners restore and protect grassland, rangeland and pastureland, and maintain viable ranching operations.

**Healthy Forests Reserve Program (HFRP)**—restores and enhances forest ecosystems for biodiversity and more.

**Conservation Reserve Program (CRP)** —pays farmers to plant trees, grass and brush on highly erodible/environmentally sensitive cropland. NRCS provides technical assistance on CRP.

### **Stewardship:**

**Conservation Stewardship Program (CSP)**—encourages producers to embrace long-term comprehensive conservation, maintaining and improving existing practices.

### **Watershed/Community -Wide Programs:**

**Watershed Protection and Flood Prevention Operations (WFPO)** —provides conservation measures and flood retarding structures in authorized watersheds.

**Emergency Watershed Protection Program (EWP)** —undertakes emergency measures on watersheds damaged by fire, flood and other natural calamities to prevent erosion and runoff that could endanger lives and property.

**Resource Conservation and Development (RC&D)** —improves economics and quality of life in an area through prudent use and conservation of natural resources.

# Georgia in The National Landscape

## Not Just Peaches!

While Georgia is known as the Peach state, peach production is not even in the Top 10 of the state’s agricultural commodities. Poultry holds the Number 1 spot, followed closely by cotton and peanuts.

## Pioneering New Initiatives

When the oil spill in the Gulf threatened the habitats of millions of wintering birds and waterfowl, NRCS responded with the Migratory Bird Habitat Initiative--helping enhance habitat along the migratory pathway. Georgia had a total of 4 contracts and obligated \$214,990 in funds.

## That Pesky Pigweed

Palmer Amaranth, more commonly known as Pigweed is wreaking havoc throughout the south--and in particular upon Georgia’s cotton industry. One plant can release hundreds of thousands of seeds and it is resistant to herbicides. NRCS funded 12 contracts in 2010 at a cost of \$155,338. The three-year, pilot project will study whether heavy cover crops and alternate chemical regimes can successfully control the pest.

## 2010 Farm Bill Program Funding\*

NRCS Program	Dollars Obligated	Number of Contracts/Easements
AGRICULTURAL WATER ENHANCEMENT PROGRAM (AWEP)	\$1.77 Million	132
CONSERVATION STEWARDSHIP PROGRAM (CSP)	\$10,245,599	584
ENVIRONMENTAL QUALITY INCENTIVES PROGRAM (EQIP)	\$16,608,655	1,271
GRASSLAND RESERVE PROGRAM (GRP)	\$915,452	1
WETLANDS RESERVE PROGRAM (WRP)	\$5,423,775	3
WILDLIFE HABITAT INCENTIVE PROGRAM (WHIP)	\$1,745,382	132

Of the 52 conservation practices available to farmers and ranchers in Georgia in 2010, resources were distributed as follows: 1) air-quality improving electric engines; 2) improved efficiency on irrigation systems; 3) thinning for healthier and more fire-resilient forests; 4) plans and structures to protect ground and surface water near dairies; 5) fencing and brush management for healthy distribution of plants and livestock on pastureland; 6) cover crops to protect and build soil health.

\*The numbers reflect Financial Assistance (FA) that is provided directly to landowners. Technical Assistance (TA) funding was also received by the Agency for professional planning and expertise to help carry out the conservation activities.