

RIPARIAN BUFFERS FOR CONSERVATION AND ENVIRONMENTAL PROTECTION IN GEORGIA

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Abstract. The USDA Natural Resources Conservation Service has set a goal of enrolling 2 million miles of land in buffers by 2002 through the National Conservation Buffer Initiative Program. Buffers serve as effective measures in protecting water quality, providing wildlife habitat, preserving greenspace and enhancing recreational opportunities. Cost share programs, state initiatives and other conservation options can be utilized for increasing miles of riparian buffers in Georgia. These opportunities are discussed and current programs in other states that may serve as models are highlighted.

INTRODUCTION

Riparian buffers play a critical role in protecting water quality on Georgia's 70,150 miles of streams. Riparian zones are impacted as development encroaches and agriculture is practiced to the edge of waterways. With 90% of the land in Georgia being privately owned, the importance of promoting conservation to landowners and offering sufficient incentives is essential.

In an effort to make farming viable, agricultural land is exempt from buffer laws under the Erosion and Sediment Act. Although buffers do not always provide direct financial benefits to farmers, the state benefits from water quality and habitat improvement. State and federal programs often are used to encourage buffer development.

FEDERAL COST SHARE

Federal cost share programs exist to assist farmers in their efforts to maintain profitable while applying conservation practices to protect natural resources. Federal programs are set every four years by the USDA Farm Services Agency Farm Bill Conservation Provisions. Federal cost share programs can assist farmers with installing buffers as well as other best management practices. Examples of programs that

enhance buffer zones include: CRP (Conservation Reserve Program), EQIP (Environmental Quality Incentives Program), WHIP (Wildlife Habitat Incentives Program), FIP (Forestry Incentives Program) and United States Fish and Wildlife Service programs.

Environmental Quality Incentives Program (EQIP) contracts are available to landowners for land that poses a threat to soil, water or other natural resources. Proposals identify specific concerns, such as restoring riparian buffers, and are submitted by local coalitions to address comprehensive resource management issues. EQIP is useful in protecting buffers; however, funding is limited. In 2000, Natural Resources Conservation Service provided \$2.8 million dollars to 417 land users under EQIP. In this period, over 2,100 applicants requested an estimated \$14 million in cost share funds (Bramblett, 2001).

Wildlife Habitat Incentives Program (WHIP) provides cost share and technical assistance to landowners for developing habitat for wildlife by planting trees and grasses and assisting with site preparation and planting. Cost share is up to 75% for conservation practices. This program is particularly concerned with habitat for threatened species, bobwhite quail, neotropical songbirds, amphibians, long leaf pine communities, upland and bottomland hardwoods and habitats associated with isolated wetlands.

Forestry Incentives Program (FIP) helps protect water quality while working to assure a reliable future supply of timber. This program cost shares 65% of the cost of tree planting on non-industrial private forest lands up to \$2,800. Eligible practices related to protecting water quality include planting and site preparation for natural regeneration. Traditionally this funding has been used to establish pines on land that has been farmed in the past. This program could be used to plant hardwoods in riparian areas (Johnson, 1999).

Partners for Fish and Wildlife is a voluntary habitat restoration program for private landowners through the US Fish and Wildlife Service. Emphasis is on restoring streams, riparian areas and degraded wetlands. Financial and technical assistance is provided through this program.

Stewardship Incentive Program (SIP) allows non-industrial forest landowners to enroll in the Forest Stewardship Program to reforest their land, enhance wildlife habitat, protect water and restore riparian and wetland areas. Created by the 1990 Farm Bill, this program is sponsored by the Georgia Forestry Commission, (GFC), Natural Resources Conservation Service (NRCS) and Farm Services Agency (FSA).

Wetland Reserve Program (WRP) was created by the 1996 Farm Bill and is designed to improve water quality and enhance wildlife habitat by restoring wetlands that have been degraded due to agricultural practices. Easements range from 10 year, 30 year, or permanent. Payments are based on the value of the agricultural land as well as the duration of the easement. This program is administered by NRCS.

The Conservation Reserve Program (CRP) is a program authorized through 2001 that is designed to protect highly erodible and environmentally sensitive land using grass, trees and other long-term cover. Practices available through the continuous sign-up program include filter strips, contour grass strips, grassed waterways, riparian buffers, native grasses, permanent wildlife habitat corridors and others. The majority of CRP funds have been allocated to upland pine plantings. Approximately 106,000 acres were enrolled in CRP for 2000, and 74,000 of these acres went into longleaf pine planting in the National Longleaf Pine Priority area. This program is a tool that can be used to establish permanent cover in our riparian areas.

Although these various cost share programs provide funds and technical assistance to landowners, the funding available provides less than one-tenth of one percent of estimated needs (Bramblett, 2001.) Other cost share programs at the state level could provide the additional funding.

CONSERVATION RESERVE ENHANCEMENT PROGRAM

The Conservation Reserve Enhancement Program (CREP) is a cost share program that expands upon CRP

by creating a partnership with state and local interests to meet specific conservation objectives. Additional payments received from CREP encourage landowners to enroll in the CRP program. The state of Georgia does not currently utilize CREP; however, it is being implemented in 13 states including Delaware, Illinois, Missouri, Michigan, Minnesota, Maryland, New York, North Carolina, Oregon, Washington, Ohio, Pennsylvania and Virginia. Eight others have sent in applications. These states match four federal dollars with every dollar of state funds.

NORTH CAROLINA CREP

North Carolina CREP can serve as a model for Georgia. North Carolina CREP has a goal of restoring 85,000 acres of riparian habitat and 15,000 acres of wetlands. Dollars are targeted by the state for the Albermarle-Pamlico Estuarine System to reduce nutrient and sediment loading from agricultural runoff. Applicable CRP conservation measures include hardwood tree planting, filter strips, riparian buffers, wetlands restoration and rare and declining habitat with one of the latter three being a requirement. Producers enroll in a 15 year CREP contract and a conservation agreement that is 15 years or permanent. Enrollment is on a continuing basis.

Payments under North Carolina CREP include annual rental payments and cost share assistance for the installation of the conservation practices. The annual rental rate is based on the soil rental rate calculated by FSA. The payment also includes an incentive payment above the mean annual per acre rental rate based on the conservation practice installed. Incentive rates are 70 percent for filter strips and 100 percent for riparian buffers and wetland restoration. The federal government also pays 50 percent of the costs of installing conservation practices.

The State pays producers that enroll solely in a 15 year CREP contract 25 percent of the cost of establishing trees, 20 percent of the costs of livestock exclusion and remote watering, and 10 percent of the costs of installing grassed filter strips. Landowners receive 5\$ per acre for maintenance. Producers who choose to enroll in NC CREP permanent or 15 year conservation agreements, receive \$100 per contract for lands enrolled in trees. (USDA News Release, www.fsa.usda.gov)

The cost for North Carolina's CREP program is \$275 million dollars for 100,000 acres over 15 years. \$221 million dollars comes from federal funds and \$54 million is provided by the state, making the state's

share of the total program costs 20% and the federal portion 80%. Cost share dollars are derived from the North Carolina Agricultural Cost Share Program for Non-Point Source Pollution Control as explained in Radcliff, 2001. It is suggested that North Carolina's state cost share program can serve as an example for Georgia to provide the matching state funds needed to be eligible for CREP.

MARYLAND CREP

Maryland also has a CREP program to protect 70,000 acres of riparian buffers and up to 10,000 acres of wetlands. They also target highly erodible land with an erodibility index greater than 15 and within 1000 feet of a stream or water body. The federal government pays 50% of the reimbursable cost of conservation practices up to \$600 an acre and not exceeding 50% of the land value. Maryland pays the remaining costs up to 87.5%, and all practices must meet NRCS standards. Incentive payments from the federal dollars are made as a percentage of the CRP maximum annual rental rate not to exceed 70% for land established to riparian buffers, 50% if established to filter strips and 50% for wetland restoration and highly erodible land. Maryland has or will establish a voluntary program for the purchase of perpetual easements and will attempt to enroll 25% of the land in permanent conservation easements (www.fsa.usda.gov).

DEVELOPING CREP IN GEORGIA

CREP dollars could be requested in Georgia for several conservation efforts that enhance the Conservation Reserve Program and help restore riparian areas. Barriers to applying for CREP may include a state requirement to own any land that is provided state funding, lack of CRP enrollment and lack of a state cost share program. Georgia may not be able to currently pay the cost of plantings because the constitution prohibits the state from making gifts of public funds to private parties. However, CREP could allow for the purchase of permanent easements.

In addition to finding solutions to these issues, Georgia must identify where funds will be focused, how match can be provided and which agency will prepare the application. In 1999, the Environmental Defense Fund outlined several potential projects to be the focus of additional funding including projects in the Oconee, Conasauga, Chattahoochee and Flint Basins. The state could choose to implement one large project or several small ones with CREP or other funding. The

Georgia Stream Buffer Initiative was formed in 1999 and is comprised of several private and public agencies and organizations already working together to promote riparian buffers in Georgia. Partners in this group would be able to organize submission of an application and assist in organizing a state program.

CREP could also play an important role in Georgia's effort to develop acceptable pollutant levels for streams and lakes under the EPA Total Maximum Daily Load (TMDL) program. Currently, there are 584 lake and stream segments in which the state standards for water quality are not met. According to this list, bacteria impairs 2,649 Georgia river miles, metals and pesticides impair 2,245 miles, and sediment impairs 149 miles (<http://www.epa.gov/owow/tmdl/303dcaus.html>). EPA has proposed modifications to the TMDL process that will require states to provide "reasonable assurance" that nonprofit sources (such as agriculture) have the means to reduce pollutant levels. A state cost share program that provides funding to implement BMP's in TMDL river basins is one way of providing that assurance (<http://www.epa.gov/owow/tmdl/ensure.html>).

OTHER BUFFER PROTECTION PROGRAMS

The Bobwhite Quail Initiative, a Georgia Department of Natural Resources Wildlife Resources Division Program, can be used to increase buffers. It helps restore quality early successional habitat for bobwhite quail, improve water quality and reduce soil erosion. This program is currently available in 17 counties on property of 50 contiguous acres or more. Land must include commercial row crop or be enrolled in CRP. Contracts are for three years and pay \$40 an acre for dry field borders, \$120 per acre for irrigated field borders and \$5 acre for prescribed burning with a maximum payment of \$10,000.

FINDING SOLUTIONS FOR GEORGIA

To improve financial incentives for landowners and increase enrollment in conservation programs, other tools must be developed and utilized. Creating a cost share program such as North Carolina is a first step. Also, development of a program similar to the Heritage Fund, which was voted down in the late 90's, could be a source of money for land acquisition.

The Governor's Greenspace Program is a potential resource for increasing riparian buffers as counties are receiving funding to set aside greenspace. These funds are generated from the ad valorem tax and given to the fastest growing counties to protect agriculture and

forestry land in its undeveloped restored state. If part of this funding could be dedicated to riparian buffer practices, it could serve as the necessary match for CREP. There are examples of entities other than the state applying for funding such as is the case for New York City CREP. If the state decided not to apply for the funding, it is possible that a county in a targeted area could. The application must be submitted by the governor.

In his article entitled "Georgia's Water Quality Crisis", Rasmussen suggests another way to increase vegetated buffers by having cities that cannot meet water quality standards pay forest landowners to maintain their forests or convert agricultural or suburban land to forest similar to what is being done with carbon sequestration (Rasmussen, 2000).

Private land trusts and non-profits that can accept easements are another tool in preserving buffers. Landowners are offered deductions from income taxes, estate taxes, capital gains and property taxes in return for putting a permanent easement on their land. For example, Maryland Environmental Trust allows landowners to donate easements to protect waterfront areas and wildlife habitat in exchange for tax breaks. By placing land in an easement with the Georgia Wetland Trust Fund, landowners can receive tax breaks by forfeiting development rights in wetland areas and placing the land in a mitigation bank. The mitigation bank assumes the costs of restoration. Many land trusts exist at the local level as well, and if there was a easy way to match up landowners seeking restoration and consultants seeking mitigation projects, more buffers may be established.

CONCLUSION

We must provide incentives for landowners to take on restoration and enhancement of riparian buffers. In order to work toward meeting the national goal of 2 million miles by 2002, a cost share program or other incentives need to be adopted in Georgia. Additional funding will help protect water quality, restore habitat, potentially meet some of the demands of upcoming TMDL requirements, and help leverage federal dollars. Other states have already created programs to meet these needs and can serve as models for Georgia to follow.

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