

THE ROLE OF GEORGIA'S SOIL AND WATER CONSERVATION DISTRICTS IN WATER RESOURCES PROGRAMS

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INTRODUCTION

An understanding of the role of soil and water conservation districts should be an important element of any program applying water resources protection on the land. In the district's enabling act, they are given the powers, among others, to build such structures as may be necessary and to develop comprehensive plans controlling the effects of water on the land within district boundaries. Districts include all counties in the state.

A key element of district effectiveness has always been the ability to secure the cooperation of landowners. This is often based upon personal acquaintance, shared experiences and concerns, and the capacity to offer free expert assistance and engineering in soil and water conservation practice implementation. With the growing demand for long term water quality protection programs has come growing demands on district money, manpower and material resources. It is therefore urged that future efforts in water resources protection include an element supporting continuation of the district program. Support can only be secured where there is an understanding of the districts and their role in water resources protection. That is the author's objective.

DISTRICTS

Soil and Water Conservation Districts in Georgia are agencies of state government. Beginning in 1937, districts were chartered by the Secretary of State and formed primarily on the basis of major watersheds. There are, for instance, the Coosa River, Chattahoochee River, and the Satilla, Flint, Oconee, Ocmulgee and Ogeechee River Districts. There are 16 single-county districts and two two-county districts, and the rest range up to nine counties. Today, Georgia has 40 districts which include all 159 counties. Three hundred and seventy people serve on district boards across the state; they receive no salary for their conservation activities.

DISTRICTS ENABLING ACT

The act which created districts and the Georgia Soil and Water Conservation Commission was passed by the Georgia legislature in 1937. It had as its basis two areas in which district boards would function: soil erosion and flooding. The districts were charged with halting soil erosion wherever it occurred and providing flood protection wherever possible -given satisfaction of environmental, financial, geological and other prerequisites. The Commission was charged with statewide overview, appropriations and administration.

In satisfying needs of the community, the land, and the agencies, district supervisors could offer neighborly concern, awareness of community needs, understanding of the importance of competing needs, and knowledge of the damage being done to the soil. What they could not offer was the engineering and technical help required to solve erosion problems. Arranging the soil, controlling the water and selecting proper vegetation are highly technical skills found in agronomists, engineers, horticulturists, hydrologists and such.

These skills are offered by the United States Department of Agriculture's Soil Conservation Service. Specialists in all the areas relating to soil and water conservation and flood prevention design are available on the staff of the SCS, which is headquartered in Athens with field offices throughout the state.

The districts enabling act created a partnership between districts and the SCS which is now 53 years old. Local people with understanding of soil and water conservation needs guide the federal people with the training and skills to respond to those needs.

In 1962 an important amendment was made to the Act. Until then it had been known as the Soil Conservation Districts Law. This amendment changed the name to the Soil and Water Conservation Districts Law. It was recognition that management of water resources was inextricably bound to management of soil resources. The Erosion and Sedimentation Act of 1975 recognized that urban erosion was as damaging and costly as that in rural

areas. The new law provided that the same basic techniques that applied in curbing rural erosion would be applied to control urban erosion.

DISTRICT PROGRAM

The work is ongoing in all areas of the state, rural and urban. In the countryside, sloping land is terraced to slow runoff and soil transport. Grassed waterways are designed and planted, and steep thin-soiled areas are taken out of production and planted to trees or grass. Gullies are filled or planted with a stabilizing cover, while the water problems which caused the gullies are resolved. Marginal cropland prone to soil loss is converted to forest or pasture land.

Where flooding occurs, entire watershed protection systems are designed to slow water runoff, retain water behind structures, and offer complete soil stabilization over often vast tracts of tens of thousands of acres of land.

There are approximately 77,000 farmers and landowners working with Georgia districts and the SCS in implementing conservation plans on more than 16,000,000 acres. It has been estimated that Georgia has 50,000 to 70,000 ponds and lakes, most of which were built through district guidance. There are 350 watershed dams, some with hundreds of acres, which are part of projects protecting millions of acres of land in Georgia from regular flooding. These same structures are often multi-use with designs featuring recreation, wildlife and water supply components also.

PROGRAM ACHIEVEMENTS

The district program resulted in 9,800,000 tons of soil prevented from transport by water last year. Over the life of the program, it is conceivable that half a billion tons of soil has been prevented from entering Georgia's waters. In urbanizing areas, where land is often denuded and exposed to the elements for extended periods, erosion rates of more than 200 tons per acre per year have been seen. Efforts at urban erosion and sediment control, while confined generally to smaller areas, tend to result in much higher rates of protection as measured in tons of soil stabilized. It is remarkable that this program which has prevented the transport of perhaps half a billion tons of soil to Georgia waters has until recently not been conducted under the auspices of water quality enhancement. It was to protect the ability of the land to sustain growth and regenerate itself. It is all the more remarkable that the same measures developed to do this are much the same measures now widely employed to protect and preserve water quality. They are now called "Best Management Practices" by the agencies involved.

SOIL AS A CARRIER

From non-point sources, soil particles, aside from being the most prevalent pollutant by volume, can carry other more harmful pollutants as they make their way to water. Though not a hard and fast rule, it can be safely assumed that, if soil can flow from the land into our waters, then nutrients pesticides, herbicides, insecticides, solvents, petroleum byproducts, oils, industrial chemicals, agricultural chemicals and more which are present in or on the soil can flow into these waters also. It follows that a reduction in soil runoff correlates with a reduction in other more threatening runoff.

SUMMARY

Georgia is now losing approximately 37,000,000 tons of soil annually on its 6,300,000 acres of cropland. No figures are available for erosion from the 2,375,400 acres of land in urban uses. Current efforts at preventing soil movement are hovering in the range of 10,000,000 tons per year. The deficit is obvious.

In programs relating to water resources quantity and quality, it is vital that basic assurances exist at the outset. Apart from point source pollutants, any program of protection, improvement or enhancement should begin with stabilized soil as a program component and not as an assumed condition.

CONCLUSIONS

The ability of the current district program to maintain even the current level of protection is threatened by declining levels of state and federal funding and manpower support. With decreasing state revenues forecast for the immediate future, it appears that local government manpower support will become a necessity and that securing or supplementing such support should be an element of water resources programs. It is also evident that future additional programs of water quality and quantity protection should include recognition of the need for support of soil and water conservation district efforts thus allowing continuation of the necessary basic protection underlying any water quality protection application on the land.