

An Answer to Sediment Pollution

The Model State Act for Soil Erosion and Sediment Control is the culmination of many years of concern by the Soil Conservation Service and local conservation districts. In a sense it is also a tribute to the demonstrated effectiveness of soil and water conservation measures in reducing land damage and sediment production.

The Model Act was suggested by the Council of State Governments, as one of more than 30 proposals by the Council for 1973 State legislation. The other proposals cover a broad range of concerns, from abandoned vehicles to alcoholism to powerplant siting to marriage and divorce.

The Act was developed by the Council, working with the National Association of Conservation Districts, state soil and water conservation boards, the Environmental Protection Agency, and the Department of Agriculture's Office of General Counsel and Soil Conservation Service.

Its provisions were based on related action over the past decade by many local governments and by 6 State governments. The working group visited several of these areas.

Let's review with the help of slides the background for this suggested legislation, and some of the more important provisions:

LIGHTS OUT. SLIDE RUN BEGINS.

Speech by Norman Berg, Associate Administrator, Soil Conservation Service, at a Sedimentation Control Institute, Charlottesville, Virginia, December 12, 1972.

1. Soil erosion became a national issue in the early 1930's when winds greatly depleted our land resource in the Great Plains and triggered the disaster known as the "Dust Bowl."
2. Thousands upon thousands of acres were destroyed...
3. Farms were abandoned.
4. Much of the land was useless.
5. At the same time in the South and Southeast, uncontrolled erosion had taken its toll of rich farmland.
6. One-crop farming, up and down hill, had left its mark.
7. And gullies scarred the countryside.
8. Congress, in 1935, established the Soil Conservation Service as a permanent agency of the Department of Agriculture to develop land and water management systems and help farmers and ranchers in establishing them on their land.
9. In 1937, after publication of a Model State Enabling Act sent to each Governor by President Roosevelt, local soil conservation districts and State boards or commissions began to be formed.
10. Since then, private land owners and operators working through the more than 3,000 conservation districts that are active today, have literally changed the face of the land.
11. Strip cropping and contouring reduce gully erosion and slow down runoff of excess water.
12. Windbreaks of trees and shrubs protect the soil from wind erosion.
13. On the thin soils of the West, well-managed ranges provide soil protection and grazing areas.
14. Sparkling ponds lend a touch of beauty to the land and conserve water for livestock.
15. In total, the conservation work on farms and ranches measures in the hundreds of millions of acres.
16. But land use does change. And land well protected from erosion and sediment once again has come under attack.
17. Since World War II, the United States has undergone a tremendous shift in land use from agriculture to subdivisions, superhighways, airports, shopping centers, and even complete new towns.

- 18. Our single largest source of sediment is still farm and ranch land. But it accounts for only half of the 4 billion tons of sediment produced each year.
- 19. Other serious sediment sources include the thousands of secondary roads from which an estimated 56 million tons of sediment are washed each year.
- 20. In addition, more than one-half million miles of eroding streambanks are producing sediment.
- 21. Surface mining has disturbed more than 4 million acres of land, and soil material from the steep spoil banks pollutes streams with sediment, acid material, and debris.
- 22. But the main source of non-agricultural sediment comes from areas undergoing urban development.
- 23. Soil erosion on a square mile of land can skyrocket from as little as 50 tons a year on farmland to more than 25,000 tons a year on land being converted to suburban uses.
- 24. More than a million acres of farm and open land are presently converted to urban uses each year. And we've just begun.
- 25. It is said that in the next 28 years we will build in and around our major cities the equivalent of everything we built in the last 350 years. And a lot of soil will be moved in doing it.
- 26. This is why the Soil Conservation Service has been asked to help with the technical soil and water conservation aspects of the Model State Act for Soil Erosion and Sediment Control.
- 27. First of all, the Model Act is a series of amendments to existing State legislation on conservation districts. It is not intended as an independent body of law.
- 28. The Act emphasizes that responsibility for an erosion and sediment control regulatory program should be placed in state commissions and conservation districts--those subdivisions of state government with up to 35 years' experience in this area.
- 29. Since sediment control requirements and situations vary widely throughout the United States, the Act must be tailored in many ways. A detailed account of its provisions thus would not be in order. It should be useful, however, to discuss a few of the more important provisions in the Model Act's 14 sections.
- 30. The preamble and Section 1 of the suggested act recognize that soil erosion is a serious problem, that sediment is a damaging pollutant, and that both add to a deterioration of the environment.

- 48. Section 4 of the Model Act calls for each district within the state to follow suit and develop its own soil erosion and sediment control program and conservation standards within the framework of the state guidelines.
- 49. The guidelines and standards would be valuable tools in the hands of engineers, developers, land users, planning staffs, units of government, consultants, and others in controlling erosion and runoff, in insuring sound development, and in improving the environment. They not only help them understand potential erosion problems, but also help them resolve the problems.
- 50. And here is where the land disturber fits into the picture. The Act proposes to achieve erosion and sediment control on urbanizing lands through a conservation plan that the person engaged in the land disturbing activity must submit to the district for approval before grading, building, or other permits can be issued. This is outlined in Section 5 and 6 of the Act.
- 51. For example, the plan may call for quick seeding and mulching of disturbed areas to protect the bare soil.
- 52. It may call for silt traps or diversions to protect adjoining property from damage.
- 53. Or it may involve stabilizing steep banks with permanent vegetation that require minimum maintenance.
- 54. The plan probably won't vary greatly from the conservation plan more than two million farmers and ranchers have voluntarily developed on their land.
- 55. The same proven conservation practices--some 100 in number--that farmers have used throughout the years can be adapted to urbanizing situations.
- 56. For example, this grassed waterway safely transports excess water off a cornfield.
- 57. This grassed waterway provides runoff protection in a housing development.
- 58. A terraced field slows down water runoff and prevents erosion damage to cropland.
- 59. A terraced lawn also keeps the soil in place.
- 60. This farmer temporarily seeded an open field to rye to protect it from wind and water erosion over the winter.
- 61. And here a developer has planted rye grass to protect denuded and graded land until construction starts. Same practices, different situations, but all achieve erosion control.

62. On agricultural and forestry land, the act would achieve erosion and sediment control, providing the land operator has an approved district conservation plan in operation or is operating in accord with local conservation standards adopted by the soil conservation district.
63. The Act also proposes that 50 percent cost sharing and adequate technical help be available to farmers and ranchers for installation of erosion and sediment control measures before they can be considered in violation of the Act.
64. The Act, of course, calls for inspection to insure compliance with the approved plan and penalties for those convicted of violations. These are covered in Sections 7 and 11.
65. In addition, the Act provides for cooperation with federal agencies, (in Section 8), acceptance of financial and other help, (in Section 9) and legal appeals (in Section 10). Sections 12 through 14 contain some standard provisions relating to appropriations, separability of the provisions of the Act, and effective date.

LIGHTS ON. SLIDE RUN ENDS.

There are several things that the act doesn't include. It contains no eminent domain authority, no new regulatory agency. It creates no new units of government or taxing authority. It is not aimed at any special group. It is not against development or growth or land-use change.

It simply wants land disturbance-- particularly for urban development-- done in an orderly manner, so as not to degrade the environment. In other words, it doesn't call for anything that isn't good conservation, and high-quality environment.

As was pointed out at the beginning, soil erosion and sediment problems are not new. But today they are receiving much public attention as a result of growing nationwide concern about water pollution.

And conservation districts have not been ignoring the non-agricultural aspect of soil erosion and sediment control. Most of them have updated their long-range programs to include assistance on non-agricultural land. And they have developed land use, erosion prevention, and sediment control programs with states, counties, towns, and cities.

The district program has been a voluntary one. Nevertheless, in view of the continuing and rapid changes in land use and the growing need for the control of sediment in urban and suburban areas, more and more district leaders now recognize that a voluntary program cannot fully meet today's needs.

The growing public concern over the sediment problem is reflected in the enactment in recent years of county ordinances and State statutes to deal with the problem.

For example, since 1965, ordinances have been enacted in the counties of Montgomery, Howard, and Washington in Maryland; Otsego County in Michigan; Steele County in Minnesota; Fairfax County in Virginia; and Buffalo County in Wisconsin. Most of these ordinances require land disturbers to file a plan for the control of erosion and sedimentation before a permit is issued. And the plan must be approved by the local conservation district.

States that have recently amended their conservation district laws to provide for consideration of sediment control are Maryland, Iowa, South Carolina, Illinois, Ohio, and Virgin Islands.

In summary, the Model Act for Soil Erosion and Sediment Control provides these principal authorities and requirements:

1. Establishment of a comprehensive state soil erosion and sediment control program that would apply to different types of land use and soil conditions, and would identify the critical problem areas.
2. Adoption of statewide guidelines including conservation standards.
3. Establishment of conservation district programs and standards that are consistent with the State program and guidelines.
4. Prohibition of many land-disturbing activities unless they are conducted under approved soil erosion and sediment control plans.
5. Implementation of the program through existing regulatory mechanisms, such as building, grading, and other kinds of permits.
6. Provision for inspection, monitoring, and reporting, and modification of plans by mutual agreement.
7. Penalties, injunctions, and other enforcement.
8. Appropriations to carry out the Act.

The many agencies and organizations that worked to produce this Model Act hope that it will serve as a guide to every State in developing soil erosion and sediment control legislation to meet its individual needs.
