

THE NATION'S SEDIMENT PROBLEM

It's a pleasure to meet again with the District Operations Committee.

Problems are negative things, and I think too often we don't get past the negative stage on environmental concerns. So although I will be showing you some bad slides--I mean slides of bad conditions--there will be slides depicting some good work, and I hope to leave you with a positive vision of the steps that can and are being taken to minimize sediment production.

Now these slides that I showed at the National Conference on Sediment Control last fall are focused on urban problems, because the major work of that conference was shaping a guidebook for county officials on controlling sediment in urbanizing areas. Sediment in urban areas is receiving a great deal of attention because:

1. Urban development often is on such a massive scale that sediment problems are particularly acute.
2. Investments in urban development--endangered investments--are very high.

Increased attention toward sediment control means that more and more local groups and governments are looking to soil and water conservation districts for some help and some answers. This is because you have long experience in rural sediment control work; you have been at the business of sediment control--erosion control--for more than three decades. Today, the Nation is very much more attractive and productive, and streams are very much cleaner than they would have been without your efforts.

Your work is not done, of course. Agriculture is still the number-one mud producer in total volume, although some other land uses far surpass agriculture on a per-acre basis. But you have the knowhow, and proven techniques, for keeping soil where it belongs. That kind of understanding is not present in much of suburbia. All the techniques have not yet been adapted to suburbia.

In our work with growing communities, then, we are coming to grips with a challenging and difficult frontier of conservation in many ways. Sediment pollution is one of them. Let's take a look at the subject.

- LIGHTS
- 1 First, let's look at a typical piece of the rural conservation scene--a tract of land used for a purpose that suits the characteristics of the soil, and fitted with vegetation and planting methods that control water flow across the property. The land is protected, and productive, and attractive.
 - 2 Now let's suppose that a metropolitan area grows out to meet this property. This happens to at least a million acres of farmland a year--that's 3,000 acres a day. The land waits for a time, idle but still protected...

Slide talk by Norman A. Berg, Associate Administrator, Soil Conservation Service, before the District Operations Committee at the 24th annual NACD Convention, San Francisco, California, February 3, 1970.

- 18 But what about the construction site itself? You can't take away tons of soil without effect--and the effect can be very expensive...
- 19 Careful construction work is washed out in a single rainstorm...
- 20 backyards disappear downhill...
- 21 or threaten to engulf the house...
- 22 and roads wash out before they can be paved. Is sediment control so expensive that the risk of construction damage or legal action by downstream landowners is preferable? I don't think so!
- 23 It is possible to have more homes for more people without first wrecking the landscape and polluting our water...
- 24 It is possible to carve out a space for a house without removing every tree in the vicinity...
- 25 It is possible to build commercial or industrial centers a piece at a time without leaving the whole site bare for years...
- 26 It is possible to build highways, even great ones, without ruining waterways for miles downstream. How to do it? Many of the answers are already available because they are part and parcel of conservation district activities.
- 27 First--and foremost--is to plan for sediment control as a regular part of any construction planning, with whatever technical help may be needed. And follow the plans. It is far cheaper to foresee problems and prevent them than to try and correct them later.
- 28 Second, find out about the soils--how well they will drain, how erosive they are, what kinds of plants are needed to protect them during or after construction, and other facts. This is equally as important as finding out how well the sites will support the buildings or roads.
- 29 Third, leave vegetation on the ground until just before construction, and disturb only as much area as is needed at one time. This apartment house builder did clear and grade a large area, but he tied down with grasses the part of the land he would build on later.
- 30 Fourth, help water move more safely off the property by putting in storm drains early...
- 31 and by getting quick vegetation on natural channels between buildings...
- 32 and getting vegetation below storm drains or other outlets. This is nothing more than the farmer's good old grass waterway. It's a good example of the principles that fit both farm and suburbia.
- 33 Fifth, stabilize hillsides and roadbanks quickly. On gentle slopes, seeding or sodding may work well...
- 34 But on steeper slopes, seeding lawngrasses may not do the job at all and sod may be the answer to give quick cover or do the job where seeded grass has failed.
- 35 But even sod won't fit everywhere. I rather question the results here...

- 49 So, just as the SCS and you in conservation districts took the challenge of wasted land--like this gully that used to be commonplace in the Southeast...
- 50 and found an opportunity for a beautiful land--just as we've helped make rural America not only productive but also a fine place to live and work--
- 51 Citizens and governments have a challenge in both town and country of changing the use of land without ruining the land and the water that drains from it.
- 52 They have an opportunity to assure the kind of pleasant surroundings that city people move out to find in the first place...the kind of pleasant surroundings that you men and women in soil and water conservation districts work toward every day.

LIGHTS

Well, that's the set. Those are some of the principles and techniques available, or on the way, to avoid sediment damage. You the conservation district leaders have the opportunity and the challenge to get these principles and techniques used. You have the challenge of helping bring about a workable sediment control program in every county, in which responsibility is transferred all along the line from the people who plan a land-use change, to those who review it, to the builder, the bulldozer operator, the sediment control inspector, the landscape architect, the nurseryman, the homeowner. You have the challenge of helping these people to know what they are doing and to care about the consequences of their actions. And finally, you have the challenge of getting action before communities need the dredge. Planning is the keyword--choosing sites carefully on the basis of soil surveys and other information, and planning erosion control measures that fit the soils, topography, and climate. There are no cure-alls; measures must be suited to each site's peculiar needs, on the basis of diagnosis and experience and skill. But sediment can be controlled, and you have demonstrated for a long time that this is fact.

For those of you who are interested in telling this story in your area, a similar set of slides and an illustrated narrative are available. The set is titled "Washout" and can be obtained from the U.S. Department of Agriculture, Photography Division, Office of Information, Washington, D.C. 20250. The cost for the set of 50 slides and narrative is \$8. It's an interesting story, and in large measure it is your story. I wish you more success in the years ahead in sediment control as a part of your broad programs for resource conservation and environmental improvement. You are in an excellent position to help the Nation be more timely in environmental action.
