

NATURAL RESOURCE CONSERVATION COMMISSION
PERSPECTIVE AND ACTIVITIES

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The Water Pollution Control Act Amendment PL 92500 sets out some specific goals for cleaning up the nation's water. Section 208 of this act calls for a planning process to include an assessment of pollution problems, a strategy to solve these problems and a procedure for applying the solutions.

The prime target of Section 208 is non-point pollution and non-point pollution is the result of overland flow. Sediment is the largest single pollutant by volume in our country. From two to four billion tons of sediment are washed into our streams and lakes each year. New Mexico has the distinction of the highest average annual sediment yield of any state in the west. I have been flying over much of the state recently and I can tell you the sediment problem is real. Therefore, one of the most important elements of New Mexico's water quality management plan will be sediment control. Since this plan (208 plan) addresses itself mostly to non-point pollution, the strategy is to solve the problem through preventive measures, rather than effluent treatment. This simply means conservation treatment of land where the problem occurs.

Soil erosion is the displacement or relocation of soil particles resulting from the erosion force of wind or water. Here we are considering water erosion. Lets take a quick look at sediment. Sediment is eroded soil deposited in water or on land downstream from the eroded site.

Some have said that because of our low rainfall, New Mexico should have no sediment problems. All who are familiar with the high intensity summer storms, which result in high rate of run off, know this is not so. We have sediment problems! A rough estimate of the problem in New Mexico shows that 12,000 square miles are seriously eroding and have high sediment yields. Of the 112,000 miles of stream channel in the state, 40,000 miles have moderate to serious bank erosion. Although we have large areas of sheet and rill erosion, most of our erosion problem occurs as gully, channel and streambank erosion.

Sediment alone is a serious water quality problem but in addition, many chemicals, pesticides, herbicides and plant nutrients are carried into streams on soil particles.

Controlling sediment calls for a planning process outlined in Section 208 of the law. First there must be an assessment to determine the magnitude and location of erosion and resulting sediment problem. Much of this information is already known but it must be drawn together into one assessment. Next, the procedure calls for determining best management practices (BMP's) to prevent erosion and the resulting sediment. These best management practices can be conservation practices familiar to us, which have been used successfully for many years. There also may be new or different practices needed to solve special problems. The treatment planned must seek to prevent erosion rather than attempt to trap sediment some place down stream. The law - the regulations and Environmental Improvement Agency requires states to develop a plan. They do not tell the states what to include in the plan, but they do stress implementation of the plan. This being the case, then the people who will implement the plan must be involved in its development. For sediment control this means those who own and operate land.

NRCC Role

New Mexico's Natural Resource Conservation Commission has accepted responsibility for preparing the sediment control portion of the water quality plan. The legislative authority and responsibility of the Natural Resource Conservation Commission makes it well suited for this job.

The Commission is a state agency whose purpose is to help local Conservation Districts. It is also charged with developing and carrying out a soil and water conservation program through Conservation Districts.

Natural Resource Conservation Districts are organized by petition and referendum of land owners within the District. The District activities are directed by a locally elected board of supervisors. Each District is to develop and carry out a program of soil and water conservation with help from cooperating state and federal agencies.

In New Mexico, there are 49 Natural Resource Conservation Districts. Each one has a long range plan for soil and water conservation. They have technical assistance available from cooperating agencies to help land owners. Through the District, the individual land owner can have the assistance he wants to plan and carry out conservation treatment on the land.

The Conservation Plan which is usually the basis for technical assistance reflects decisions of the land owner.

Environmental Protection Agency representatives have stated many times and here again today, they expect to make maximum use of existing institutions. The institutional arrangement between the Natural Resource Conservation Commission, Conservation Districts and cooperating agencies make the commission ideally suited to prepare the sediment control part of the state 208 plan.

To get started with the sediment control plan, an advisory committee was set up to suggest procedures and to help the planning coordinator. This committee is made up of federal and state agency representatives such as Forest Service, Bureau of Land Management, State Land Office and State Forester. This committee has advised on procedures and techniques for planning. It meets on call to review progress and help coordinate work with their respective agencies.

Technology Application Center of the University of New Mexico has been working with Land SAT photos to gather many kinds of resource data. The commission entered a contract with T.A.C. to provide Land SAT photo base maps. They will also map general land types, check maps in the field and make area measures.

We decided to start work in Eddy County since it represents many complex problems of erosion, land ownership and land use. Eddy County offered a good place to develop and test the procedure for planning. Using General Soil Maps prepared cooperatively by Soil Conservation Service and New Mexico State University TAC prepared a map showing similiar land types. The map is compared with the Land SAT photo to refine land type boundaries. Technology Application Center checked maps in the field and will make area measurements. This map, along with the photos and base maps, were furnished to me, the planning coordinator.

I met with local technical agencies people SCS, BLM, Forest Service and the Agriculture Extension Agent and reviewed other soils information and erosion maps available. Additional information needed was assigned to agency technicians, to complete the erosion map. In Eddy County, BLM made the assessment east of the Pecos. Forest Service made the assessment for the National Forest in the southwest part of the county. Soil Conservation Service completed the map. This map shows erosion rates in terms of acre feet per square mile per year. Special problem areas were located during the assessment and based on local knowledge.

When the erosion assessment was completed, I met with the local Conservation District to review the maps and help them develop Best Management Practices designed to control erosion and sediment.

In most cases, the Best Management Practices will be the conservation practices now being used in the District. The NRCDC Commission is relying on Districts to select levels of treatment which are reasonable and practical.

Plans will be developed and coordinated county by county. Information will be tabulated for all counties and county plans combined into one state plan. The water quality plan must include costs and implementation procedure. The commission is consulting Conservation District Supervisors and local people on methods of implementing the plan. To date, they see primary emphasis placed on voluntary application of Best Management Practices based on the county plan. Technical assistance would be provided through Conservation Districts.

For those practices requiring capital expense where return would be very long term, cost sharing incentive programs should be provided. This would be appropriate where the practice can show direct need to improve water quality. As a last resort, for those areas where sediment control is still needed, enforcement would be necessary.

The Commission proposes the local Conservation District serve as the Management Agency reviewing problem areas, recommending site specific treatment to reduce erosion and sediment, and provide detailed planning assistance to the land operator.

We are learning as we go about developing these plans. One thing we are sure of is local people must be involved and the plan must include their ideas if it is to succeed. So far, local leaders and Conservation District Supervisors have been very positive about participating in preparing the plan.

There is a short time to complete this job, but with local cooperation, I expect to complete the plan on schedule.

In summary - The Natural Resource Conservation Commission fully recognizes the need to improve water quality and control sediment. The 208 planning and implementation program offers an excellent opportunity to get this done. Until now Conservation treatment of land has been carried on for the sake of land improvement even though we knew good land treatment reflected favorably on water quality. Now water quality improvement is a recognized purpose for conservation treatment on the land.

The planning process outlined in Section 208 is sound - use existing institutions - assess the problem - plan treatment to solve the problem - develop strategy for implementing the plan. Throughout this process, involve local people keeping the plan reasonable and practical.