

WATERSHED MANAGEMENT RESEARCH

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This will be a short report of my experiences as a member of the Advisory Council for the Rocky Mountain Forest and Range Experiment Station.

This experiment station is concerned primarily with basic research in watershed management. The purpose of the Advisory Council is to guide the station as to types of projects conducted. Meetings of the council are held once or twice annually. They may be either office meetings or field trips to inspect projects proposed or in progress. Membership of the council consists of representatives of most Federal and State agencies concerned with water use and watershed management in the southwest. There are also two ranchers on the council of which I am one.

The council has taken the position that research projects should be designed to develop information that will lead to a balanced program of watershed management to best serve the needs of the main interests concerned.

There are four groups mainly concerned with the use of watersheds. They are:

1. Water users. This group consists of those who need water for irrigation, towns and cities who must have water for domestic use and industries who need water for their operations.
2. Grazing interests. Since range livestock production is still the most important industry in the southwest proper range management on watersheds is extremely important economically.
3. Timber interests. Timber is one of the major resources of this area. Relations of timber production and proper watershed management need careful study.
4. Recreation. With a growing population with more leisure time the demand for more recreational facilities is growing. This aspect of watershed management needs to be studied.

Projects now being conducted by the research people include.

1. Watershed treatments of various kinds to determine which produces the greatest long time yield of water. In these studies cost of treatment, effects on silting of reservoirs and possible invasion by brush all need careful study. Timber management is being studied here too.
2. Range management studies. These include reseeding investigations and efforts to find proper rates of stocking. Proper time of use is also being investigated.
3. Various soil treatments to find their effect on water yield, erosion and forage production.

Many people feel that careful investigation is needed before any large scale watershed treatment is undertaken. In one of our neighboring states great pressure developed for immediate action to get more water from the water-

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sheds. Consequently about a million acres have been cleared of timber. No one knows if this will work. First, the cost seems to be out of all reason. Second, there is great likelihood of more erosion and silting of reservoirs. Third, there is danger of brush coming in to take the place of the timber. It might use more water than the trees. Fourth, seeding of grass in many of the areas cleared has not been successful to date.

This serves to illustrate the complicated nature of the whole watershed problem. Careful measurements need to be made on small pilot watersheds before any large scale treatments are applied. Several such projects are now in progress. Water yields of several watersheds are being measured before treatment. Various treatments will then be applied so that an accurate comparison can be had.

But all research takes time. This is especially true of work which needs to be done on our watersheds. I believe the work could be speeded up a great deal, but this costs money. Perhaps it all depends on how much we are willing to spend for more water.