

power. In view of the public interest displayed last year at agricultural and pastoral shows where exhibitions were given, the Council decided to foster further displays at several leading shows during this year. Enlarged photographs of soil erosion and conservation of general as well as of local interest were displayed, while erosion in action was demonstrated by means of a working model and by continuous sound films. Liberal use was made of American productions until the New Zealand films were available.

#### HYDROLOGY

During the year the Council has tackled the problem of organizing on a national basis the co-ordinated collection and analysis of hydrologic data and making it available in suitable form to the community at large and particularly to those concerned in the design, construction, and maintenance of works associated with hydro-electric, water-supply, drainage, bridges and culverts, irrigation, rivers control, soil conservation, and land use.

Such persons require data of indisputable character concerning rainfall, snowfall, evaporation, runoff, ground water, infiltration, consumptive use, and suspended and bed loads in rivers collected over the longest possible period of years. A wealth of such data whose standards can be accepted already exists hidden in the archives of Government Departments, local bodies, and interested private individuals; it requires only analysis and publication in an intelligent way.

The present coverage, however, of such fundamental data is very meagre and many more data-collecting stations will have to be installed in the more important drainage basins throughout New Zealand to provide even a satisfactory skeleton network.

A technical committee is being set up to explore the problem and bring down clear recommendations as to what permanent organization should be established to cover this field.

The Council hopes, by co-operation with Government Departments, local bodies, and private individuals, that a steady increasing programme for this vital work can be initiated as demobilization of the Armed Services makes skilled staffs available.

Opportunity was taken in the middle of the prolonged drought during February and March to gauge low flows in over one hundred rivers and streams in Northland, Waikato, Bay of Plenty, and East Coast districts. The most striking low flow gauging was in the Waipaoa River, Gisborne, where 24 cubic feet per second was measured in February as flowing from a watershed of 683 square miles. In March, 1944, at the same gauging spot, a flood flow of 100,500 cubic feet per second was calculated.

#### INSPECTION

During the year the Council visited Northland, Auckland, and the Waikato districts, and it has held meetings with local bodies in Clutha district, Dunedin, Blenheim, Hamilton, Te Aroha, Tauranga, and Whakatane regarding the establishment of further catchment districts.

#### APPRECIATION

The objects for which the Council has been established cannot be achieved without, firstly, the fullest co-operation and whole-hearted enthusiasm of the various Government Departments, Catchment Boards, and local bodies associated with the Council in its work, and, secondly, without the active co-operation of the occupiers and users of the land where soil erosion and flood damage is both apparent and potential.

The Council desires to record that this appreciation and co-operation is growing more apparent as the aims and work of the Council are extending.