forest and grassland associations, regarding the behaviour and control of introduced animals and plants, and regarding land-use classification. Progress will be slow until these problems have received detailed study, and there is accordingly a real need for trained personnel to conduct this research and to apply in the field the knowledge so acquired.

HYDROLOGY

In 1946 the Council set up a permanent advisory Committee known as the Technical Committee, Hydrologic Data, to advise the Council on all matters concerning organizing on a national basis the collection and publication of basic hydrologic data—namely, rainfall, snowfall, evaporation, stream gauging, and ground water.

This Committee consists of the following members, or their representatives, all but one being resident in Wellington :—

A consulting engineer, who is Chairman, who is able to act for private enterprise, County Councils, Catchment and River Boards, and power engineers.
The City Engineers, Wellington and Auckland.
The Director of Meteorological Services, Air Department.
The Chief Civil Engineer, New Zealand Railways.
The Assistant Engineer-in-Chief (Civil), Ministry of Works.
The Assistant Engineer-in-Chief (Hydro), Ministry of Works.
The Director, New Zealand Geological Survey, Department of Scientific and Industrial Research.
The Soil Conservation Engineer and the Senior Engineer to Council.

This Committee has made several progress reports, which have been adopted by Council, the most important being—

(1) In May, 1946, that Meteorological Services should be requested to increase by 400 the number of manual rain-gauges in the national skeleton network, thereby increasing their density to 1 per 60 square miles in the more important river systems, and to increase by 100 the number of automatic recording rain-gauges.

(2) In May, 1947, that Council should increase the number of river-gauging stations to provide a reasonable first cover of the more important rivers, and a programme capable of being undertaken within the next few years, by 130 staff gauging, 76 automatic gauging, and 38 maximum-level-recording stations. It was estimated that the capital cost of these additional stations would be about £120,000, their annual maintenance cost about £7,000, and for field, analysing, and publishing staffs and miscellaneous costs some £24,000 per annum.

(3) In February, 1947, that Council should promote amending legislation for the control of ground water in order to define and protect the rights, within limited and restricted areas, of a large section of the population which depends solely, or partially, upon underground water for domestic, agricultural, and industrial purposes.

(4) In December, 1947, that Council should approve the agreement reached with the Director of Meteorological Services as to how rainfall data should be analysed and published monthly and annually.

Excellent progress has been made by Meteorological Services in intensifying their national skeleton network of rainfall stations. At the beginning of the year there were in the national network some 766 manual and 32 automatic rain-gauges, whereas by