

REPORT 1986 HYDROLOGY AND WATER RESOURCES SYMPOSIUM

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The 1986 Hydrology and Water Resources Symposium was held at Griffith University, Brisbane, Australia from 25-27 November and its theme was "River Basin Management". The Symposium was organised by the National Committee on Hydrology and Water Resources of the College of Civil Engineers and the Australian Institute of Engineers. The Symposium was attended by about 220 people mostly from Australia but with some from New Zealand, U.S.A., Canada and South Africa. The Symposium was divided into 3 streams, except for the 4 plenary sessions, with a total of 72 papers and 12 poster papers being presented. Papers were presented on: River basin planning and management; Flood estimation; Irrigation; Flood plain management; Rainfall runoff modelling; Groundwater; Estuary pollution; Urban water supply systems; Landuse effects; Environment management; Urban storm water; Salinity management and Erosion. The Symposium was preceded by a 2-day tour of the Brisbane River Valley and Darling Downs.

The keynote address was given by Professor P.A. Krenkel of the University of Nevada and addressed the topic of Water Resources Development and Environmental Legislation. He made two major points from his observations in U.S.A. Firstly, the large number of environmental protection acts have had a large impact on water resource developments and have delayed and caused the redesign of many projects. These effects have cost large amounts of money. Secondly, all environmental acts require monitoring for compliance and enforcement which in turn requires the collection of good quality data which can be easily retrieved and analysed.

Professor B. Mitchell of University of Waterloo was invited to discuss Canadian experiences of River Basin Management. The Canadians have been involved with comprehensive and integrated resource management, using the catchment as the planning unit, for over 20 years. Generally this approach has been viewed as unsuccessful; the studies have been too comprehensive; the studies have taken too long (3-5 years); the recommendations have been too general, vague or ambiguous with too many calls for extra research; the recommendations have proved difficult if not impossible for water managers to implement and often the recommendations do not get implemented in a systematic manner or do not get implemented at all. The Canadians have responded to their experience by instituting "strategic planning" in some provinces. Strategic planning still uses the catchment as the planning unit but focuses on the prime issues requiring solution. Although not attempting

to address all resource issues in the catchment, integration of the planning process is still attempted. The planning process is now based on existing data and culminates in an explicit policy framework. I believe the Canadian experience has valuable lessons for water resources management in New Zealand.

Dr J. P. Paterson, of the Department of Water Resources, Victoria, echoed some of Professor Mitchell's comments, pointing out that the Victorians had wasted 10-15 years trying to co-ordinate agencies which had potential influence on the water resources, in order to achieve comprehensive river basin management. Although Dr Paterson applauded the past success of the single purpose agencies in reducing soil erosion, minimising the impact of flooding, providing domestic water supplies etc., he pointed out that integrated catchment management is much more difficult to implement. In his view specialist groups should work essentially independently but under the overall control of an integrated catchment plan which has political backing.

In addition to papers dealing with the planning aspects of river basin management there were many and varied papers on the technical aspects. These included papers on: a simulation model for detailed assessment of water resource systems; a regional assessment of water resources development; water quality management in estuaries and water management for environmental needs. Copies of the abstracts and a full report on the Symposium, associated field trip and visit to the Queensland Water Resources Commission, are available from me for the cost of the copying. Bound copies of the papers are available from EA Books, 18 Chandos Street, St. Leonards, New South Wales 2065, Australia.

I would like to thank the New Zealand Hydrological Society, National Water and Soil Conservation Authority and the Otago Catchment Board for providing financial assistance to attend the Symposium. In my view the Symposium was very successful and I would recommend attendance at future Symposia.