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Editorial

After five years Dr Paul Mosley has "retired" as editor of the New Zealand Journal of Hydrology and I look forward to the challenge of following in his footsteps, although he has left large shoes to fill. Under Paul's stewardship the *Journal* has gone from strength to strength and I intend to keep this up. New Zealand hydrology has greatly benefited from Paul's efforts—thanks Paul!

Since becoming editor I have seen a steady stream of papers, of which only the best have been accepted. While the majority are from New Zealand-based authors, it is very exciting to see an increasing number from overseas. I would like to take this opportunity to thank all the reviewers I have spoken to lately (and those to whom I have yet to send manuscripts). The quality of the *Journal* relies on your input and assessments.

The four papers in this volume cover areas of hydrology that are at the edge of hydrological research, as well those of immense local interest. While the floods across much of the southern North Island in February this year focussed interest on the role of intense rainfall in triggering shallow regolith slides, the paper by McConchie analyses the easily overlooked topic of earthflows. This paper critically evaluates a substantial amount of field data, which reveal the importance of soil-water interactions and earthflow morphology. The morphology of the earthflow, by controlling the drainage patterns within the slope, acts to maintain slope instability. The considerable body of literature on the effect of antecedent conditions, morphology and soil-water interactions continues to illustrate the difficulty in deriving general models of the triggers of slope instability.

The paper by Kensington *et al.* concerns groundwater quality in the Taieri Plain aquifer. Given groundwater is an important source of drinking water for much of the New Zealand population and a source of water for many industries and agricultural practices, there has been growing concern about groundwater quality. Comprehensive field studies such as this are crucial to allow pro-active water management. Rosen and White (2003) and the number of groundwater-related papers in upcoming issues of this *Journal* highlight the significance of the groundwater resource in New Zealand, especially as it is affected by changes in land use.

Sheng Yue and Wang in their study of Canadian flood flows demonstrate the effect of the different climatic regions of Canada on the appropriate selection of the probability distributions for annual flood peak flows (annual maximum daily streamflow). This paper thus adds to the accumulated literature on this subject and provides a useful addition to the data specific to New Zealand (e.g., Pearson and Davies, 1997).

Given the current interest in relating flow regimes to environmental effects, the paper by Clausen and Plew is particularly timely. It documents an attempt to calculate the bed-moving flow in 40 New Zealand river reaches and to relate the results to commonly used flow statistics. As hydrologists, attempts to relate measures of flow to sediment transport and ecological conditions can aid both our understanding of hydrological systems and our attempts to manage crucial water resources.

The continued presence of hydrology in New Zealand is clearly demonstrated by the quality of papers published in this *Journal* and the upcoming *Freshwaters of New Zealand* (Harding *et al.*, 2004). I would like to commend all those working in the field and encourage publication of research findings to maximise the benefit of this work.

Dr Richard Hawke
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Harding, J.; Mosley, M.P.; Pearson, C.P.; Sorrell, B. (*eds.*) 2004: *Freshwaters of New Zealand.* New Zealand Hydrological Society and the New Zealand Limnological Society, Wellington, 700 p.

Pearson, C.; Davies, T. 1997: Stochastic methods. In: *Floods and Droughts: the New Zealand experience.* Mosley, M.P. and Pearson, C.P. (eds.) New Zealand Hydrological Society, Wellington, p. 65-87.

Rosen, M.R.; White, P.A. (*eds.*) 2001: *Groundwaters of New Zealand.* New Zealand Hydrological Society, Wellington, 498 p.