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GUEST EDITORIAL

THE COLOURS OF HYDROLOGY

The letterhead logo of the New Zealand Hydrological Society is not just a drop of water, it is a blue drop of water. Hydrology is the science of where water is and what it is doing there. Characteristically in New Zealand, water is often both abundant and clean. Neither is specifically true, however, for a particular location, and water is neither abundant nor clean throughout the world.

In April 1990, Professor S. Dyck of Dresden University (GDR) introduced the idea of green hydrology, speaking at an IGBP/IAHS conference. I heard about it in June 1990, when Professor Malin Falkenmark of Stockholm, Sweden, referred to the concept at the International Symposium on Water Resource Systems Application in Winnipeg, Canada. Green hydrology is concerned (my interpretation) not only with where water is at and what it is doing there, but with how compatible this is with sustainable, high-quality, human life on this planet.

A participant at the June symposium, commenting on Professor Falkenmark's address, said that his own work must be brown hydrology. The inseparability of water quality from water quantity is crystal clear now in many hydrological activities in most parts of the world.

Whether this comment is just a diversion prefacing the real journal content, or whether it is a useful insight, putting published papers on hydrology in this and other journals into a new light, is for you to decide. I wish to add one more colour, or perhaps I should say absence of colour; because there is some danger from black hydrology. This description comes both from the necessary reduction to black symbols on white paper that typifies bringing real-world ideas on hydrology to the printed form, and from the often unnecessary obfuscation with which some authors cloak those ideas, using esoteric and difficult mathematics and terminology inappropriately.

In his retiring Editorial in the Journal early in 1990, Tim Davies reminded us that water, the major component and sustainer of life, can also kill people — quickly, by storm, flood and erosion processes; or more slowly, by its prolonged absence. A quick calculation indicates that New Zealand receives as precipitation a million cubic metres per year (MCM/a) of water for about every 10 people in the country. Professor Falkenmark estimated that water resource availability of 1 MCM/a for about every 800 people indicates a stress level; Israel exists with an unbelievable 1 MCM/a for about every 2000 people.

New Zealand is in a favoured position of clean and plentiful water. The Journal has a strong tradition in blue hydrology. The Society and the journal have national and international responsibilities which, in the present analogy, can be expressed as the need to recognise and deal with green and brown hydrology without slipping into black hydrology.

David Painter
Department of Natural Resources Engineering
Lincoln University
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