

EVALUATION OF KARSTIC WATER QUALITIES IN THE NAM LA AND SUOI MUOI CATCHMENTS

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Karstic groundwater and surface waters are extremely vulnerable to pollution. For karstic water resources management, it is therefore of utmost importance to monitor water qualities, such that appropriate protection of water resources can be set up. Surface waters and karstic groundwater springs in the Nam La and Suoi Muoi catchment (Vietnam) were sampled in 1999 and 2000 during several field campaigns. These samples were analysed for standard parameters and for bacteriological content. Hydrochemical analysis, based on different indices, graphing, statistical analyses

and calculation of saturation indices, explain the water qualities in relation to the regional geology. The bacteriological water analyses show for some springs poor qualities due to faecal coliforms. Observed qualities are explained as a result of the vulnerability caused by karst features. It is argued that the mapping of these features should form the basis for development of water resources systems that will have acceptable water qualities. It is shown that the results of the hydrochemical analysis can contribute to the research into karstic flow systems.