A step change in reservoir safety management: Quantitative Risk Assessment and its strategic implications

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SYNOPSIS. Quantitative risk assessment (QRA) techniques now provide the ability to make meaningful estimates of the probability of failure, its consequences and thus the risk (probability x consequences) of dam failure. This has the potential to provide a major, step, improvement in reservoir safety management in UK. This paper describes the areas where QRA may be applied, the issues on which a strategy for use of QRA on dams needs to be developed and agreed within the UK reservoir engineering community, together with the requirements of the tools for the QRA.