

## **Loyne Dam - Stability Review based on a QRA, Event Tree Approach**

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**SYNOPSIS.** Quantitative Risk Assessment (QRA) methods are being increasingly used to assess the safety of UK dams, but the emphasis to date has been on the erosion of fill dams. The author has used the approach followed in the recent USBR Unified method for assessing such risks and has adapted them for assessing the stability of concrete gravity sections at Loyne dam. The results are compared to Persons at Risk (PAR) from potential flood releases and are demonstrated to fall below the ALARP region, indicating acceptability.