



Reservoir safety is high on ICE agenda

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The incident at Ulley dam near Rotherham highlights the need for continued monitoring and vigilance at the UK stock of reservoirs.

Such reservoirs have been at the heart of Britain's development both as one of the major contributors to improved public health in Victorian England and as an integral part of the canal network. The 2500 large raised reservoirs in the UK are essential to ensuring continued water supply even through periods of prolonged drought.

The reservoirs have to be designed to accommodate periods of intense rainfall and then need to safely pass excess water downstream. Early failures of UK dams and associated losses of life at the end of the 1800s and beginning of the 1900s led to the introduction of the UK Reservoirs Act in 1930. This has been a major success and there have been no recorded losses of life due to reservoir failure in the UK since its introduction. The Act was updated in 1975 and its implementation among reservoir owners is now enforced by the Environment Agency.

"Finding ways to continually improve the safety of our existing stock of dams is an ongoing process," says Dr Peter Mason, Vice Chairman of the **British Dam Society**, an Associated Society of the ICE.

Appropriate research to that end is to be guided by the newly formed Reservoirs Safety Advisory Group, of which Dr Mason is Chairman. This has been formed by the Institution of Civil Engineers on behalf of Defra and the EA. The group includes representatives from Defra, the EA, owners and academia.

On-going initiatives include an adaptation of the Flood Estimation Handbook to deal with long return period rainfalls and recommendations on Internal Erosion, Quantitative Risk Analysis and Emergency Preparedness Planning at dams. The EA have also recently introduced a formalised Pots-Incident Reporting Process for dams so that lessons learned from incidents such as Ulley can be captured and used to reduce the risk of similar incidents occurring at other reservoirs.

The ICE and the British Dam Society have both been at the heart of UK dam engineering for many years. The keen involvement also of Defra and the EA will ensure that reservoir safety remains high on the agenda as we move forward and continue to enhance the work started back in 1930.