

Joint BHS-BDS National Meeting

Institution of Civil Engineers, One Great George Street, London
Thursday 7th March 2019

UK reservoir spillway flood hydrology

Some aspects of design flood estimation standard techniques for dam spillway hydrology are based on research and state-of-the-art thinking now more than four decades old. In the light of experience with these techniques, and given progress with extreme rainfall analysis, rainfall–streamflow modelling, etc, the question arises: **Should current standard techniques for UK reservoir and spillway design flood estimation now be comprehensively reassessed with a view towards their possible improvement, or even replacement?**

The meeting will bring together practitioners and research hydrologists to consider this question. The meeting will also be of interest to:

- engineers and administrators with responsibilities for reservoir spillway design and dam safety inspections;
- reservoir/dam owners; and
- government agency regulators.

Speakers:

Duncan Faulkner, JBA Consulting – Welcome

David MacDonald, Consulting Engineer – *Reflections on FSR/FEH methods of design flood estimation*

João Correia, Senior Dams Engineer, Atkins – *Flood Studies of Reservoirs – General Guidance and Two Case Studies*

Colin Clark and James Dent, Charlton Hill Research Station – *Revised estimates of Probable Maximum Precipitation (PMP) and Standard Percentage Runoff (SPR)*

Alan Warren, Inspecting Engineer, Mott MacDonald Group – *Flood estimation for reservoir safety – an Inspecting Engineer’s perspective*

David Mould and Richard Dun, Canal & River Trust – *Practical experience from hydrology and engineering from reservoir flood studies across the Canal & River Trust’s network*

Thomas Kjeldsen, University of Bath and ICE Reservoir Safety Advisory Group – *Investigating dependence between ReFH model parameters and event magnitude for extreme events*

Lisa Stewart, Andy Young and Gianni Vesuviano, Centre for Ecology & Hydrology and Wallingford HydroSolutions – *Modelling the runoff from extreme hydrological events: an inter-comparison of data and methods*

Mark Macklin, University of Lincoln – *Centennial scale records of extreme floods in the British uplands and their potential application to reservoir and spillway design*

Ian Littlewood, IGL Environment – *Precision and accuracy of Unit Hydrograph parameters for gauged and ungauged basins: can we do better?*

Programme and discussion sessions will be Chaired by **Peter Ede** (President BHS), **Alan Warren** (Vice-Chair BDS) and **Anita Asadullah** (EA National Flood Hydrology Team Leader).

The registration fee of £80 for BHS and BDS Members (non-Members £110, students & retired BHS/BDS/ICE members £60) includes a buffet lunch and morning & afternoon tea. We recommend early online registration – via

<http://www.ice.org.uk/events/private-events/uk-reservoir-spillway-flood-hydrology-london>.

Meeting organisers:

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