



EVENING MEETING

MONDAY 24th January 2011 at 5:30 PM

One Great George Street, London

(Nearest tube: Westminster)

Waves and wave overtopping on reservoir structures

By

**PROF WILLIAM ALLSOP, NIGEL TOZER, DAVE ROBINSON
DR TIM PULLEN & TRACEY WILLIAMSON
HR Wallingford**

For a brief synopsis see overleaf

Admission Free

Teas Available from 5.00pm

For more information please contact

Tim Fuller (BDS Secretary) on 020 7665 2234 or Email : bds@ice.org.uk



Waves and wave overtopping on reservoir structures

For many inland reservoirs, the extreme meteorological conditions that drive high fluvial inflows into the reservoir, perhaps threatening the dam by possible overflow, will often be combined with strong winds, which will in turn generate wave action on the reservoir. This produces the additional threat to the dam of wave overtopping.

In engineering or analysing the performance of a reservoir under such extreme events, the reservoir engineer needs to test whether the dam can withstand the combined effects of high water levels and large waves, and thus some degree of wave overtopping.

There has been historical confusion amongst some reservoir engineers between the terms overflowing and wave overtopping. This set of presentations will describe the generation and effects of waves on reservoirs, and the processes of wave overtopping (not overflowing, where water level exceeds the dam crest).

The speakers will describe improvements in analysis methods and tools developed over the last 10-20 years. This will include recent advances in the prediction of wave overtopping, drawing particularly on the recently compiled EurOtop Manual.

As intensive or prolonged wave overtopping and/or overflow may cause erosion of the dam crest and downstream face, leading to a dam breach, the speakers will also describe recent work in the Netherlands, Belgium and USA to test the stability of downstream faces of embankments subject to intermittent overtopping flows.

Presenters will be HR Wallingford's William Allsop, Nigel Tozer / Peter Hawkes, Tracey Williamson, Tim Pullen and Dave Robinson.