



International Association of Hydrogeologists

Irish Group

Joint Geotechnical Society of Ireland/IAH (Irish Group) Lecture

Comparing predicted and observed performance of a major dewatering scheme

by

Eric Farrell and Kathy MacCarthy*

**Department of Civil, Structural, and Environmental Engineering, TCD
(*now AMEC Earth & Environmental, Canada)**

Synopsis

This paper discusses the reliability of ground investigation methods in predicting the dewatering requirements for a major excavation by using the Kildare Town Bypass as a case history. The permeability values estimated from PSDs, from variable head tests and from pumping tests carried out during the ground investigation are presented and compared with those interpreted from the measured groundwater response during the excavation. The theoretical limitations in the methods used to derive these values are explored. The advantages of using various methods of designing dewatering systems are discussed, from simple flow models to time varying finite element modelling of the aquifer using FEFLOW.

Venue: Engineers Ireland, 22 Clyde Road, Ballsbridge, Dublin 4

Date: Tuesday 13th January, 2009

Time: 18.00 hrs. (Tea/coffee in bar from 17.30hrs)

Future Meetings

3rd February 2009 **The David Burdon Lecture Memorial Lecture**

“Water scarcity and climate change in sub-Saharan Africa: defining the role of groundwater” by Richard Taylor, Department of Geography, UCL, London

For further information contact either Donal Daly (01-2680186), Gerry Baker (087 7731071) or Caoimhe Hickey (01-6782824)
