

UK Groundwater Modellers' Forum 9th workshop

Regional Groundwater Modelling in the UK: past, present, future

19th November 2009, 9:45am - 4pm, Priory Rooms, central Birmingham

Background

Over the last ten years there has been extensive development of regional groundwater models across England and Wales for water resources purposes lead by the Environment Agency of England and Wales. This has consisted of eight regionally managed programmes that are underpinned by a framework, which has allowed a co-ordinated national approach. Much of the work is now nearing completion, and the models will be used extensively during the first cycle of the Water Framework Directive. A publication is being produced with the Geological Society including papers representing different aspects of development and application of groundwater models.

An author from each paper has been invited to give a short talk at this workshop, which will provide an opportunity for reflection on this extensive body of work, and to take a strategic look forward into where groundwater modelling in the UK is heading in the future. Two keynote speakers will set the scene in the morning, and there will be opportunity for questions and comments after each talk, and in a plenary session in the afternoon.

Programme

	Invited Keynote Presentations
MORNING	<p>Reflections, perceptions and challenges <i>Keith Seymour, Environment Agency</i></p> <p>Keith is the technical lead for Hydrogeology within the Environment Agency</p>
	<p><i>Mary Anderson, University of Wisconsin</i></p> <p>Mary Anderson is C.S. Slichter Professor of Hydrogeology, Department of Geology and Geophysics, University of Wisconsin, who is writing the foreword to the Special Publication and will give a keynote talk from the USA on the long view of modelling programmes in the past and future</p>
	<p>Three parallel sessions with 20-minute talks from three speakers in each session</p>
LUNCH	Buffet lunch provided
AFTERNOON	<p>Three parallel sessions with 20-minute talks from six speakers in each session</p>
	<p>Plenary session, discussion, collation of ideas and suggestions</p>
	<p>Close</p>

Provisional talks and speakers

The national regional modelling projects of England and Wales	<i>Mark Whiteman, Environment Agency</i>
Groundwater modelling in Scotland - a brief history	<i>Majdi Mansour, British Geological Survey</i>
Regional groundwater models – the external advisor's viewpoint	<i>Jane Dottridge, Mott MacDonald</i>
How to get your model results used: A guide to stakeholder engagement	<i>Andrew Hughes, British Geological Survey</i>
How the models are being delivered - the National Groundwater Modelling System for England and Wales (NGMS)	<i>Mark Whiteman, Environment Agency</i>
Recharge estimation for regional groundwater modelling in the UK	<i>Dirk Liss, Entec UK</i>
Impacts of groundwater abstractions on river flows - predictions from regional groundwater models	<i>Rob Soley, Entec UK</i>
A rapid model for estimating the reduction in river flows due to groundwater abstraction	<i>Paul Hulme, Environment Agency</i>
Wetland impact prediction from regional groundwater models	<i>Tim Lewis, Entec UK</i>
Climate change predictions and groundwater source yield implications	<i>Paul Davison, Entec UK</i>
Modelling without boundaries - comparing, joining and disaggregating neighbouring groundwater models	<i>Alastair Black, Entec UK</i>
Pest controlled: responsible application of inverse techniques on UK groundwater models	<i>Gemma Black, Entec UK</i>
Extending the use of regional groundwater flow models to simulate contaminant transport	<i>Jane Dottridge, Mott MacDonald</i>
Using models to help protect and improve groundwater quality	<i>Nick Rukin, Entec UK</i>
Advances in modelling groundwater behaviour in Chalk catchments	<i>Adrian Butler, Imperial College</i>
Modelling river flows in the Chalk	<i>Tim Lewis, Entec UK</i>
Modelling the hydrogeology and managed groundwater system of the Chalk across Southern and South West Regions	<i>Tim Power, Entec UK</i>
Groundwater resource modelling for public supply management in London: A review of recent developments	<i>Michael Jones, Thames Water</i>
One size fits all? - hydrogeological modelling of the Permo-Triassic Sandstone in England	<i>Simon Gebbett, Environment Agency</i>
Refinement of the Vale of St. Albans Groundwater Model	<i>Adam Taylor, Groundwater Modelling Solutions</i>
Development and Application of the Kennet Valley Groundwater Model	<i>Lesley McWilliam, Atkins</i>
Spatial heterogeneity of recharge through Quaternary deposits	<i>Geoff Parkin, Newcastle University</i>
Using a tiered approach for management of water resources in an aquifer susceptible to saline intrusion and upconing	<i>S.R. Arthur, ESI Ltd</i>
Effects of faulting on regional groundwater flow dynamics in the Lower Mersey Basin and North Merseyside Permo-	<i>C.D. Bemment, ESI Ltd</i>

Triassic aquifer, UK	
Simulation of an unlined water transfer tunnel in the Lichfield Permo-Triassic Sandstone aquifer, UK	<i>P.J.J. Daily, ESI Ltd</i>
A successful model? The 30 year operational life of the Lincolnshire Chalk model	<i>Phil Hayes, Entec UK</i>
Lumped modelling of the Mendips karstic Limestone	<i>Rik Ingram, Entec UK</i>
Using and refining an existing regional groundwater model to assess the impacts of an abstraction on a nearby RSPB reserve	<i>Sarah Gellatly, Schlumberger Water Services</i>
Modelling challenges into the future	<i>Phil Hayes, Entec UK</i>
A glimpse into a virtual future: What groundwater modelling could be like in a decade?	<i>Chris Jackson, British Geological Survey</i>

Participants & Booking

The workshop is open to all who are actively involved in groundwater modelling. We anticipate that BGS, CEH, water companies, consultants, universities and the Environment Agency would be amongst those taking part.

Places are limited to 75 participants in total which will be allocated on a first come-first served basis. Unfortunately there will be no 'entry on the day' and only pre-booked attendance can be accepted.

Cost £85 per head incl. buffet lunch. For this workshop only, this includes a small contribution to maintenance and hosting of the Groundwater Modeller's Forum website <http://www.groundwateruk.org/html/modelling/home.htm>. A small number of places for PhD students are available at a cost of £10 (first come, first served).

To book a place send a cheque and the attached booking form to Jeanne Thompson **before Thursday 15th October 2009**. Entry will be by advance payment only.

If there are insufficient numbers booked by 15th October 2009, the workshop will be cancelled and cheques returned. If you book and your organisation has already made three bookings, your name will be put on a reserve list and you will be offered a place if available in the 2 weeks preceding the event.

BOOKING FORM

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To book a place send a cheque for £85 (PhD students £10) made payable to “The Environment Agency” and the attached booking form to Jeanne Thompson, **to arrive by 15th October 2009**. Unfortunately there will be no ‘entry on the day’ and only pre-booked attendance can be accepted.

Contact: Jeanne Thompson Environment Agency Science Group, Olton Court, 10 Warwick Road, Olton, Solihull B92 7HX; Tel: 0121 708 4714; Fax: 0121 708 4637.

jeanne.thompson@environment-agency.gov.uk

Name	Organisation	email address
Please book us places on the workshop		
Cheque for £85 x number of participants enclosed		