

WHAT

Use of the deep subsurface in the UK: what are the implications for groundwater resources?

WHERE

The Geological Society, Burlington House, London, UK

WHEN

11–12 July 2018

There is renewed interest in the deep (>200 m below ground level) onshore sub-surface in the UK, with increasing exploration for, and development of:

- conventional and unconventional oil and gas
- geothermal energy
- potash mining

and for storage purposes including:

- nuclear waste
- natural gas
- carbon dioxide.

However, the use of the deep subsurface introduces significant technological challenges and with this an element of risk to groundwater resources, both in terms of quality and quantity. To effectively assess and manage the risks, a far better understanding of natural hydrogeological conditions (physical, chemical and biological) at depth and the hazards and potential impacts associated with the different activities is required. This presents unique challenges due to difficulties accessing, measuring and/or retrieving information from the deep subsurface.

This meeting will bring together a range of stakeholders including those responsible for policy and decision making,

researchers and technologists to discuss the current state of knowledge and identify the critical gaps that need to be addressed to better understand, assess and manage the risks to groundwater from deep sub-surface activities along with the associated uncertainties.

We welcome contributions related to:

- **Characterisation**—of deep groundwater systems and pathways to shallower groundwater, aquifers and groundwater-dependent surface environments,
- **Flow and transport**—understanding of flow and transport processes in deep groundwater systems and along migration pathways,
- **Environmental risks and impacts**—including cumulative impacts on groundwater quality and quantity, from the development of deep sub-surface resources or storage,
- **Policy challenges**—legislation, regulation and planning in relation to deep groundwater systems and activities, and
- **Communication and engagement**—how can we better communicate risks and foster improved engagement with communities affected by use of the deep subsurface.



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Studies may include field measurements, geophysics, modelling, and laboratory experiments among others.

It is anticipated that contributions will have a UK focus but talks demonstrating international experience that is directly relevant to the UK context are also encouraged. The programme will be framed to promote the dissemination of research and sharing of knowledge between research communities and with a relevance to those involved with planning, policy and decision making.

Keynote speakers

Kevin Parkes (Alberta Energy Regulator)
Irena Gaus (Nagra)
Additional speakers to be confirmed

Abstracts

We are accepting abstracts of up to 300 words for both poster and oral presentations. Please follow instructions and the template available on <https://www.geolsoc.org.uk/hydro>. Deadline Friday 5th March.

Convenors

Tim Besien (Environment Agency)
John Bloomfield (BGS)
Ian Davey (Environment Agency)
Barnaby Harding (ESI)
Stefan Krause (University of Birmingham)
Sian Loveless (BGS)
Ulrich Ofterdinger (Queen's University, Belfast)
Mike Rivett (GroundH2O plus)
Sarah Scott (Environment Agency)
Rob Ward (BGS)
Fred Worrall (Durham University)

Sponsorship

We would welcome sponsorship for this conference. Sponsors will receive promotion at the event. Details of the packages can be provided on request. If you would like to find out more please contact Barnaby Harding (BarnabyHarding@esi-consulting.co.uk).

For more information please contact:

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