



iah  
Australian National  
Chapter  
NSW Branch

[www.iah.org.au](http://www.iah.org.au)



**Tuesday 11 November 2014**

5:30 pm for 6 pm start

**Parsons Brinckerhoff offices**

Ernst & Young Centre

Level 26, 680 George Street, Sydney CBD

***\*\*For late arrivals, please phone Sean Daykin on 0413412980 for access\*\****



*IAH NSW proudly presents a talk by **David K. Kreamer**,*

*Professor, University of Nevada, Las Vegas*

*Vice President for North America, International Association of Hydrogeologists*

*President Universities Council on Water Resources*

### **Preserving Springs in the Grand Canyon National Park, USA – Tracking Groundwater Geochemically**

The springs in Grand Canyon National Park are the focus of wildlife in an arid environment, Native American religious cultural traditions, recreational enthusiasts, and can be vulnerable to the impacts of both municipal development outside the park boundaries, and industrial development, particularly mining activities. Spring flow in the Grand Canyon is controlled by geological structure and stratigraphy, and waters can be dated and tracked using environmental tracers. Use of traditional environmental groundwater tracers in the Canyon will be discussed, as well as less often used parameters, such as trace elements in the sub-parts per trillion range, and uranium isotope disequilibrium. The results of this work give resource managers basic data to address concerns of visitor traffic, land use, and future development.

**Please RSVP to:**

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Graham Hawkes [Graham.Hawkes@aecom.com](mailto:Graham.Hawkes@aecom.com) mob 0417 134 422

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