



International Association of Hydrogeologists  
Irish Group

## **TECHNICAL DISCUSSION MEETING**



**Alan Seltzer, UCD:**

***Dissolved Gas Tracers in  
Groundwater: from Climate to  
Denitrification***



**Dept of Climate, Energy and the Environment, Beggars Bush, D04 K7X4**



**Tuesday 3<sup>rd</sup> February 2026**



**Tea & Coffee: 5:15 PM | Presentation: 5:45 PM**



**Register in person [here](#)**



**Join meeting online details [here](#)**

**More information: <https://www.iah-ireland.org/upcoming-events/>**

### **Future IAH Irish Group Events**

TBC March

IAH TDM – Alex Cabral, TCD

Tues 14<sup>th</sup> – Wed 15<sup>th</sup> April

IAH conference “Groundwater 2035: Building Resilience for the Next Decade”

For further information on TDMs contact Katie Tedd [katie.tedd@gsi.ie](mailto:katie.tedd@gsi.ie) / 01 678 2617



**Details:**

**Alan Seltzer, UCD**

**Dissolved Gas Tracers in Groundwater: from Climate to Denitrification**

The talk will include a conceptual overview of how geochemical tracers in groundwater preserve physical signals set during recharge, as well as several case studies focused specifically on dissolved gas tracers with wide ranging applications. These case studies include reconstruction of past environmental and climatic information using inert gases in fossil groundwater, tracing the origin and mechanisms of emplacement of offshore freshened groundwater on the New England Shelf, and finally a forward view of how these tracers can be used in both in-situ and lab-based studies focused on applied hydrogeological studies such as tracing groundwater recharge sources (e.g., alternatives to dye tracing) and as a new quantitative tool to understand the sources and fate of nitrate in groundwater systems.