



## Understanding and applying paleoflood records

Daryl Lam

Scientist, Water Technology

### Agenda

4.00pm - Presentation

~5.30pm – Nibbles and Drinks

Meet the Speakers

### Contact us

HydSoc SA Inc.

PO Box 6136, Halifax Street

Adelaide SA 5000

[www.hydsoc.org](http://www.hydsoc.org)

### Location: Level 7

Ingkarni Wardli Building,

Adelaide University

North Terrace Adelaide

Daryl is an environmental scientist and physical geographer who works with companies, academics and policy makers to address environmental concerns. His focus includes analysing palaeofloods to improve flood management.

Palaeofloods are physical evidence of floods that occurred prior to systematic measurements. Palaeoflood records can provide evidence of past extreme flood events and extend the records to improve understanding of future flood hazard and risk. Importantly, they are recommended by the Australian Rainfall and Runoff Guidelines. In Australia, gauge records are short and extreme flood events are often missing or not recorded accurately due to flood damage. The lack of extreme flood data compromise accurate analysis of flood risk and hazard.

### Example Applications

- Improve understanding of frequency and magnitude of extreme events for dam and spillway design and improvements
- Extend extreme flood records where there are few or none available
- Integrate palaeoflood records to Flood Frequency Analysis (FFA) to improve credible limit of extrapolation (AEP) □ Place extreme outlier(s) in recent flood discharge into temporal context
- Reduce uncertainty in FFA for flood risk and hazard mapping

## Paleoclimatology and climate variability in Australia

Dr Jonathon Tyler

Senior Lecturer, School of Physical Sciences, University of Adelaide

Jonathon is a senior lecturer in Earth Sciences and researches climate variability past and present and the way Earth surface processes can be deciphered using chemical signatures. He is interested in developing the tools used to construct past climates through field and experimental studies on modern systems. Recently, his focus has been on the last 2000 years of climate variability in southern Australia and on the period known for the end of the last ice age (the last 50,000 years).

