

# Sunday 15 September 2024

## Full Day Workshops

Time: 9:00 AM – 5:00 PM

Venue: Adelaide Convention Centre

Registration Fees: \$620 inclusive GST

(The workshop is fully catered and will be provided with morning, afternoon tea and lunch)

**Delegates are requested to bring their laptop to do the exercises and access the resources during the workshop**

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### Workshop - 3

## Human Health Risk Assessment – the How to Guide

### About this workshop

This one-day Human Health Risk Assessment (HHRA) workshop provides a 'step-by-step' guide to the HHRA process and provides information and resources to complete HHRAs in accordance with Australian recommended guidance. The workshop focuses on the technical aspects of HHRA models to reveal their mysteries and uncover the key influencing parameters that drive human health risk. An interactive forum is provided and encouraged to allow attendees to engage with the presenters and other workshop participants during group exercises and discussions. Case studies and project examples will be provided to illustrate the key concepts.

The workshop will benefit those wishing to conduct, interpret and/or review HHRAs.

In the afternoon, attendees will learn HHRA approaches adopted in USA, UK and China, to understand the similarities and differences in international methodologies.

### **Why Attend?**

The workshop is aimed at people who have no prior experience performing HHRAs but it is assumed that attendees will have some knowledge of the contaminated land industry such as Tier 1 screening assessments and assessment of contaminated sites. The workshop should be of interest to regulators, industry professionals and consultants who are required to perform, review and interpret HHRAs.

Attendees are required to bring a calculator to perform the workshop exercises.

### **Workshop attendees will receive:**

- 6.0 hrs of CPD point
- Link to the workshop paper
- Presentation slides (in secured PDF)
- a downloadable online resource folder link

### **Program**

#### Day Program

<b>Morning Session: (3 Hrs)</b>	
9:00 – 10:00 AM	Workshop Start
10:00 – 10:30 AM	Morning Tea
10:30 – 12:30 PM	The workshop continue
12:30 – 1:30 PM	Lunch Break
<b>Afternoon Session: (3 Hrs)</b>	
1:30 – 3:00 PM	Workshop Continue
3:00 – 3:30 PM	Afternoon Tea
3:30 – 5:00 PM	The workshop continues incl. Q&A and wrap-up

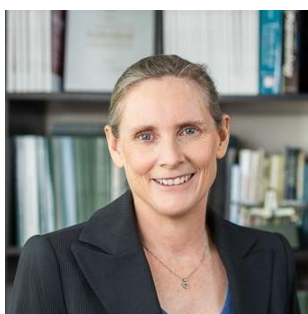
### Morning Session (9:00 AM – 12:30 PM)

- What is HHRA?
  - HHRA history and guidance
  - Issues Identification and CSM development
  - Toxicity/Hazard Assessment
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### Afternoon Session ( 1:30 PM – 5:00 PM)

- Exposure Assessment
- Risk Characterisation
- HHRA Approaches in USA, UK and China
- QRA Case Studies of PFAS under Multiple Land Uses

### Presenters



#### **Dr Jackie Wright**

Director/Principal

Environmental Risk Sciences Pty Ltd.

(EnRisks)

**Dr Jackie Wright** has over 30 years' experience in human health and environmental risk assessment in Australia. Experience includes leading and developing a national risk practice group for a major consultancy, training of staff, providing technical (and toxicological) direction, developing national guidance (including the NEPM variation (2013) CRC Technical Reports 13, 23 and 40), development of internal technical standards, participating in the development on industry guidance and standards, developing appropriate risk models and providing peer-review. Areas of expertise include toxicological review and evaluation of chemicals in line with Australian regulatory requirements, human health and environmental risk assessment, exposure modelling including vapour migration and intrusion modelling and measurement, indoor air quality assessment, environmental monitoring, and the assessment of air emissions and air toxics. She has experience in a wide range of human health risk assessments on over 300 sites in all states of Australia that involve the evaluation of emissions to air, waste sites, residential and recreation areas, operating industrial plants as well as other industrial plants that have been closed and are in the process of property sales or redevelopment. Jackie is a fellow of the Australian College of Toxicology and Risk Assessment (ACTRA).



**Dr. Belinda Goldsworthy**

Human Health and Ecological Risk Assessor  
Principal Environmental Risk Sciences Pty Ltd.  
(EnRisks)

Dr. Belinda Goldsworthy has more than 20 years' experience in the contaminated sites industry and specialises in human health and ecological risk assessments. Belinda has assisted with the development of national contaminated land and risk assessment guidance for Australia, Singapore and Hong Kong. She has extensive experience providing human health and ecological risk assessment training for health and environmental regulators, industry bodies and universities. Belinda has performed over 150 health risk assessments that evaluated human exposure to a range of chemicals and media. Belinda has in-depth knowledge and experience conducting complex ecological risk assessments for marine, freshwater and terrestrial habitats; and derives site-specific guidelines protective of human health and ecology. Belinda is approved by the NSW Environment Protection Authority (EPA) to provide technical support to Accredited Contaminated Land Auditors for risk assessment projects, and has provided her professional opinion and risk assessment expertise for numerous risk assessment projects in all states of Australia. Belinda is a registrant of the Australian College of Toxicology and Risk Assessment (ACTRA).



**Prof. Mengfang Chen**

**Research Professor, Institute of Soil Science, Chinese Academy of Sciences**

Prof. Mengfang Chen specializes in site remediation and is currently a research professor with Institute of Soil Science, Chinese Academy of Sciences. Prof. Chen has over thirty years' experience working in contaminated land research and consultancy with considerable experience in soil and groundwater investigation, quantitative risk assessment, ecological restoration of acid mine drainage from abandoned mines. Prof. Chen is the founding chair of Soil Remediation Committee of Soil Sciences Society of China and acted as an International Project Advisor for Euro-FP7 Project (NANOREM) and technical advisor for the regeneration of 2012 London Olympic Parks. He was senior consultant and technical director with major consulting and engineering firms including Environmental Resources Management (ERM) Ltd, Jacobs Engineering Inc, Capita Group and Royal HaskoningDHV.

Mengfang and his team have developed Health Exposure Risk Assessment (HERA) software which have been used nationally and beyond for undertaking risk assessment of common and emerging contaminants for derelict lands and constructing groundwater monitoring and risk warning systems for existing manufacturing sites and large industrial parks. Mengfang has authored over 140 peer-reviewed papers in internationally renowned journals and written over 200 consulting reports related to site investigation, risk assessment and remedial strategies of contaminated sites in the UK, Europe, Mid-East and China. He routinely provides technical training courses on soil and groundwater risk assessment using RBCA, CLEA and HERA models in Australia, UK and China since 2004 and has also published six books in a series of contaminated risk control and remediation. \_\_\_\_\_