ecoforum Brisbane 2025

Risk Assessment Specialist Interest Group

INTRODUCTION

RASIG is one of ALGA's specialist interest groups dedicated to providing a forum for people from across the industry, with specialist knowledge, and interest in risk assessment, to identify and address issues, share ideas and knowledge and provide opportunities for ALGA members to improve the awareness and knowledge of risk assessment.

PURPOSE

The overall purpose of RASIG is to grow understanding and knowledge in all aspects of Risk Assessment within the contaminated land and groundwater practice area.

Primary objectives are:

1. To provide structure and support for members that are interested in improving their knowledge in risk assessment;
2. To provide information, training, and views to help shape and advance the industry approach to human health and ecological risk assessment, including risk communication.

RISK ASSESSMENT TOPICS

Broadly, the areas of Risk Assessment that the group covers are:

Human Health and Ecological Risk Assessment

Human Health and Ecological Risk Assessment (HHERA) is the process of estimating the potential impact of chemical hazard(s) on a specified human population or ecological system. A risk assessment is framed around an exposure scenario and evaluates potential risks within a defined set of conditions. Conceptual site models (CSM) as shown in Fig. 1 are essential part of assessing the source-pathway-receptor (SPR) linkages.

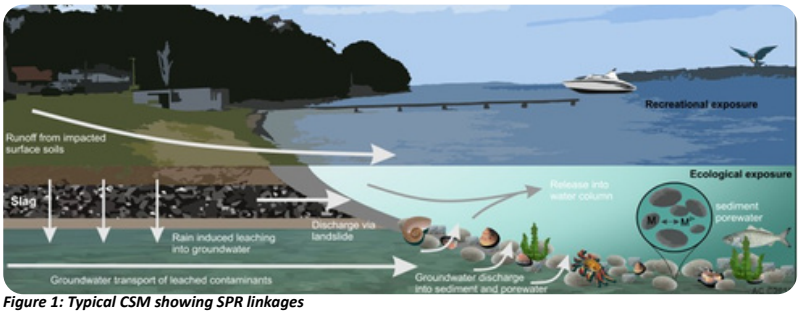


Figure 1: Typical CSM showing SPR linkages

Toxicology/ecotoxicology

Toxicology/ecotoxicology is the study of the effects of chemical hazards on people and ecological organisms. How a chemical interacts with a person or organism, and the response to increasing doses are important considerations for HHERA.Toxicology/ecotoxicology is the science behind the Hazard Assessment in a HHERA.

Emerging contaminants

Emerging contaminants are synthetic or naturally occurring chemicals that are not commonly monitored in the environment but have the potential to cause adverse effects in people and other organisms. ALGA has another SIG that focuses on Emerging Contaminants.

Risk management

Risk management involves processes or structures that reduce risks to people and the environment from chemicals or other hazards. Risk management may be a recommendation from a HHERA so that risks are low and acceptable.

Risk communications

Risk communication is a key part of human health and ecological risk assessment. Risk communication, both written and oral, is an important skill for risk assessors. RASIG *also covers public health and contaminated land and has a growing interest in climate change risks associated with contaminated land.*

Key guidance documents

- enHealth2012: Environmental Health Risk Assessment
- Assessment of Site Contamination NEPM Schedules B4, B5 and B7
- ANZG (2018): Guidelines for Fresh and Marine Water Quality

ACTIVITIES

RASIG activities for 2024-2025 included:

ALGA Events

- Victorian Branch Meeting - Demistifying Risk Assessment (Gemma Williams) – July 2024
- RemTech Europe (Carolyn Brumley and Victoria Lazenby gave training on risk assessment) – September 2024
- New Zealand Conference (Victoria Lazenby – Keynote speaker and trainer) – A Risk Assessors Guide to the Galaxy (of Emerging Contaminants) – October 2024
- NSW Local Government Contaminated Land Forum (chaired by Ana Serra, presentation by Anand Chandra and John Russell) – December 2024
- Vapour Intrusion / Ground Gas Symposium (Victoria Lazenby, Ken Kiefer and Matt Taylor) – March 2025
- E-chronicle article (John Russell) – April 2025
- Auckland Branch Meeting – Investigation and Regulatory Consultation Approaches for a Former Landfill (Marcus Hermann) – May 2025

Webinars

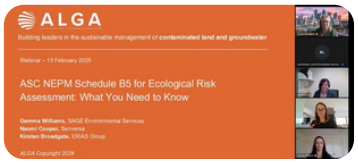
- Human Health Risk Assessment Webinar (presented by Carolyn Brumley and Gemma Williams) – October 2024
- Ecological Risk Assessment Webinar (presented by Kirsten Broadgate, Naomi Cooper and Gemma Williams) – February 2025
- PFAS Webinar (organised by Stephen Cambridge, Ken Keifer and Matt Taylor) – May 2025

2025 ACTIVITIES

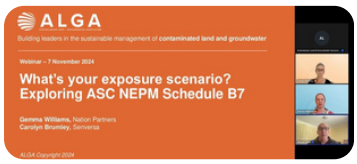
RASIG activities so far for 2025 has included:

Gas and Vapour Symposium: What is the Risk? Melbourne 27&28 March 2025

Webinar: ASC NEPM Schedule B5 for Ecological Risk Assessment: What you Need to Know



Webinar: What's your exposure scenario? Exploring ASC NEPM Schedule B7



FORTHCOMING ACTIVITIES 2025-2026

Primary activities that the group will continue to focus on are:

- Conference Participation – ecoforum 2025
- 1 day Risk Assessment Training Day – ecoforum 2025
- Climate Change Webinars
- 3 day short course in Human Health and Ecological Risk Assessment (HHERA) - May 2026
- Additional Technical webinars / publications

RASIG MEMBERS PRESENTING AT ECOFORUM 2025

Individual Presenters

- Carolyn Brumley – Managing Risks of PFAS in Compost and a Circular Economy
- Scott Carroll – Sustainable Remediation in Practice: Hands-On Workshop Using the SURE Tool
- Anand Chandra – Sustainable Management of Toxic Cyanobacterial Blooms: A Climate-Resilient Approach for Safe Reuse and Discharge
- Ken Kiefer – PFAS Groundwater Plume Interpretation and Confounding Transforming Precursors
- Victoria Lazenby – Future-Proofing Your Soil Vapour Dataset
- Victoria Lazenby – A Can-Do Attitude and AI: Is it enough to generate passable text for a Risk Assessor's approval?
- Gemma Williams – Exploring key ecological receptors for use in ecological risks associated with secondar poisoning – A PFAS case study

Risk Assessment Training

- Risk Assessment Uncovered: How Human Health and Ecological Guideline Values are Derived 27 October 2025
  - Case Study and Group Work
  - Hands-On: HIL/EIL Calculators and Conceptual Site Models
  - Introduction to Risk Assessment and NEPM

RASIG COMMITTEE MEMBERS 2024-2025

- Carolyn Brumley (Co-Chair) - Senversa
- Naomi Cooper (Co-Chair) - Senversa
- Marcus Herrmann - Riley Consultants
- Gemma Williams - Sage Environmental
- Scott Carroll - Liberty Industrial
- Ken Kiefer - ERM
- Kirsten Broadgate - ERIAS
- Ana Serra - Liverpool City Council
- Victoria Lazenby - Terravale
- Vivien Pan - Pattle Delamore Partners (new in 2025)
- Stephen Cambridge - Pivot Environmental
- Anand Chandra - Stantec
- John Russell - Douglas Partners
- Jai Singh - Stantec
- Rowan Freeman - Pattle Delamore Partners (new in 2025)

FEEDBACK

Have a suggestion, want more RASIG webinars or want to contribute to RASIG activities?

We would love to hear from you. Talk to any of our committee members or drop us a line at: ALGARiskAssessmentSIG@landandgroundwater.com