

Position Description – Research Associate

Updated 26 August 2026

POSITION DETAILS	
College	College of Science and Engineering
Organisational Unit	National Centre for Groundwater Research & Training
Supervisor	Professor of Hydrogeology & Matthew Flinders Professor
Classification	Research (Academic) Level A
Employment Type	Fixed-term, full-time

POSITION SUMMARY
This position will be part of a research team working on an ARC-funded projects, 'Threats to the water quality and ecosystem of Coffin Bay, South Australia' and 'Will Australia's largest mine cause extinction of the Doongmabulla Springs?'. These are collaborative projects between Flinders University and several Australian University and industry partners. The Research Associate will investigate surface water-groundwater interactions, channel-network modelling, nutrient discharge, freshwater-saltwater dynamics and water management practices within coastal settings in Australia, using various hydrogeological techniques. For example, saltwater dynamics will be explored using numerical groundwater models and supported by extensive field data from field sites, where water demand draws extensively on the coastal aquifers of the study areas. The long-term behaviour of the groundwater systems in response to natural and human-induced variations in climate, land use, river regulation and groundwater pumping will be explored.

UNIVERSITY EXPECTATIONS AND VALUES
All staff at Flinders are responsible for understanding their obligations and responsibilities as set out in the University's code of conduct and are expected to: • demonstrate commitment to the University's values of Integrity, Courage, Innovation, Excellence and the underlying ethos of being Student Centred; • contribute to the efficient and effective functioning of the team or work unit in order to meet the University's objectives. This includes demonstrating appropriate and professional workplace behaviours, providing assistance to team members if required and undertaking other key responsibilities or activities as directed by one's supervisor; • promote and support an inclusive workplace culture which values diversity and embraces the principles of equal opportunity; • perform their responsibilities in a manner which reflects and responds to continuous improvement; and • familiarise themselves and comply with the University's Work Health and Safety, Injury Management and Equal Opportunity policies. <i>Flinders University is committed to providing a safe, respectful and inclusive environment, free from gender-based violence. Appointment to this role is conditional on the completion of required pre-employment checks and declarations, each of which must be satisfactory to the University. This includes a Gender-Based Violence declaration, in accordance with the National Higher Education Code to Prevent and Respond to Gender-Based Violence (2025), and a Nationally Coordinated Criminal History Check.</i>

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KEY POSITION RESPONSIBILITIES

The Research Associate is accountable for:

- Providing support for hydrological or hydrogeological research, including mixed-density groundwater systems. The research will incorporate numerical modelling, field activities, report writing, data analysis and possibly sand tank experimentation.
- Communicating and collaborating successfully with project staff from other disciplines and institutions;
- Contributing to physical experimentation of mixed-density groundwater processes.
- Contributing to any field work associated with the project.
- Drafting clear scientific written material and presenting results to group meeting and other scientific fora.
- Any other responsibilities in line with the level of the position as assigned by the Supervisor and/or the University.
- There may be a need to travel to field sites and/or interstate to attend meetings with project partners.
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KEY POSITION CAPABILITIES

- A PhD in hydrology, hydrogeology, water resources engineering or related field (or near completion of a PhD) or equivalent experience.
- Demonstrated expertise in physics-based modelling of surface water and/or groundwater systems.
- Knowledge of relationships between surface-subsurface hydrological processes, including surface water-groundwater interactions and soil-groundwater processes.
- Strong proficiency in scientific programming and numerical modelling, with strong coding skills (e.g., Python).
- Demonstrated ability to meet deadlines and to work with minimal supervision.
- Demonstrated ability to innovate and commitment to research publication.
- High-level interpersonal and written and oral communication skills in English.
- Demonstrated ability to work collaboratively.

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