

## Position Description – Research Fellow in Hydrogeology

Updated 12 July 2024

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

POSITION SUMMARY
<p>The Research Fellow will undertake research in hydrogeology pertaining to ARC-funded projects ‘Sustaining intensive agriculture through droughts and floods’, and ‘Threats to the water quality and ecosystem of Coffin Bay, South Australia’ under the broad direction of the project lead, Prof. Adrian Werner. These are collaborative projects between Flinders University and several Australian University and industry partners. In working with the research team, the position will contribute to project design and implementation, the analysis of data and the preparation of manuscripts for publication.</p> <p>The Research Fellow will actively report on new and current research related to the research program, through generation of high-quality publications and conference presentations. In addition, the position will contribute to the preparation of applications for externally funded research funding.</p> <p>The position will support the research of undergraduate and postgraduate student projects, with an expectation to contribute to the co-supervision of student projects.</p>

UNIVERSITY EXPECTATIONS AND VALUES
<p>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:</p> <ul style="list-style-type: none"> <li>• demonstrate commitment to the University’s values of Integrity, Courage, Innovation, Excellence and the underlying ethos of being Student Centred;</li> <li>• 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;</li> <li>• promote and support an inclusive workplace culture which values diversity and embraces the principles of equal opportunity;</li> <li>• perform their responsibilities in a manner which reflects and responds to continuous improvement; and</li> <li>• familiarise themselves and comply with the University’s Work Health and Safety, Injury Management and Equal Opportunity policies.</li> </ul>

KEY POSITION RESPONSIBILITIES
<p>The Research Fellow in Hydrogeology is accountable for:</p> <ul style="list-style-type: none"> <li>• The delivery of high-quality hydrogeological research on mixed-density groundwater systems. The research will incorporate numerical modelling, field activities, report writing, data analysis, and possibly sand tank</li> </ul>

experimentation. Numerical variable-density groundwater flow and solute transport models will be used to explore mixed-density groundwater systems related to seawater intrusion, under various conditions, including episodic flooding, and tidal boundary condition effects.

- Actively contributing to the research project by collaborating with the Research Team to successfully deliver project milestones and Key Performance Indicators.
- Independently contributing to the planning and execution of research by offering new and innovative ideas, reviewing relevant literature and other sources of information, actively participating in the production of data, contributing to the writing and editing of grant applications and attending seminars, meetings and conferences.
- Playing a lead role in coordinating, planning and executing the project tasks required to collaborate with industry partners.
- Independently contributing to ethical, high quality and innovative research and evaluation through activities such as scholarship, publishing in recognised high-quality journals and assisting the preparation and submission of bids for external research funding.
- Supervision of honours and post graduate research projects.
- Establishing and maintaining collaborations within the University, and at State, national and international levels in order to improve research outputs, patents and publications.
- Some out of hours work (including weekends) as well as rural SA, interstate and overseas travel, may be required.
- Any other responsibilities in line with the level of the position as assigned by the Supervisor and/or the University.

*A National Police Certificate which is satisfactory to the University will be required by Flinders University before the successful applicant can commence in this position.*

*An up to date COVID-19 vaccination may be required as a condition of employment, in accordance with the Flinders University [COVID-19 Vaccination Policy \(2022\)](#). If required, any offer of employment will be subject to the successful candidate presenting their COVID-19 Digital Certificate as evidence of vaccination or showing evidence of a valid medical exemption, where relevant.*

#### **KEY POSITION CAPABILITIES**

- Completion of a PhD in hydrogeology or a related field.
- Demonstrated research experience in terms of publications in high quality publications, attraction of external competitive grants and presentations at a national and/or international level in hydrogeology, including numerical modelling.
- Demonstrated experience in qualitative and quantitative hydrogeological research methodologies.
- Demonstrated experience delivering project targets on time.
- Demonstrated ability to plan and execute data collection and analysis to solve hydrogeological research questions.
- Demonstrated well-developed interpersonal skills and experience in collaborating and engaging with diverse stakeholders and industry partners.
- Demonstrated ability to critically review the literature in relevant fields.
- Demonstrated experience to undertake collaborative research and establish and maintain effective relationships with staff and industry.
- Demonstrated excellent oral and written communication skills in an academic environment.