# Position Details

## Research Scientist/Engineer- CSOF5

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| The following information is for applicants | |
| Advertised Job Title | Research Scientist - Hydrogeologist/Groundwater Hydrologist |
| Job Reference | 78617 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$102k to AU$111k pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Brisbane (Dutton Park) QLD; other locations by negotiation |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * All Candidates |
| Position reports to the | Research Leader Sustainable Groundwater Futures Team |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Rodrigo Rojas via email at Rodrigo.Rojas@csiro.au or phone +61 7 3833 5600 |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Acknowledgement of Country

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the area that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with CSIRO’s strategies. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

The Research Scientist - Hydrogeologist/Groundwater Hydrologist position will be part of the Sustainable Groundwater Futures team based in Brisbane. This team sits within the Groundwater Management Group in the Water Security Research Program in the CSIRO Land and Water Business Unit. The role will further develop hydrogeology and groundwater assessment core capabilities to meet research demands in water security and in regional groundwater resource characterization and management. This is particularly so in the context of extractive resource development, agriculture, changing climatic conditions and enhanced water security through conjunctive use of surface water and groundwater in key areas around the country (e.g., Murray-Darling Basin, Great Artesian Basin, Northern Territory). This capability integrates skills across hydrogeological characterization using multiple lines of evidence, groundwater hydrology, geo-statistics, and spatial-temporal groundwater data analytics using emergent techniques in the Machine Learning/Artificial Intelligence domain.

### Duties and Key Result Areas

* Support and conduct innovative research in geological and hydrogeological conceptualisation and characterisation for better understanding of groundwater processes, aquifers connectivity and groundwater-surface water exchanges.
* Apply and develop innovative statistical techniques adding value to hydrogeological and groundwater hydrology assessment and repurposing existing collected data as well as expanding the expertise in groundwater resource assessment.
* Support and undertake research on groundwater resource assessment applying a broad range of geoscientific data analytics tools and data sources to support Digital Water and Landscape strategic initiative as well as contributing to Integrated Regional Water Assessments in key basins across Australia.
* Undertake fieldwork involving the collection of groundwater and surface water hydrochemistry and tracer samples.
* Foster collaboration across other Business Units such as Data61, Agriculture & Food, Minerals, Energy to enhance the understanding of groundwater's role to support productive sectors such as irrigated agriculture, mining and gas/petroleum.
* Support and produce technical scientific reports, engage in scientific writing and delivery of scientific publications, lead specific tasks or project components, engage with other specialists across CSIRO to deliver on projects and present project outcomes.
* Under limited direction, assist in the planning and preparation of research proposals and carry out research investigations, requiring originality, creativity and innovation.
* Address problems promptly and in a constructive manner, selecting the most profitable lines of attack upon a problem, preparing detailed design proposals and experimental protocols.
* Undertake in experimental and/or observational research activities, often requiring the supervision and/or training of others to ensure experiments are established in accordance with research design, or as required.
* Draw on professional expertise, knowledge of other disciplines and research experience, recognise opportunities for innovation and generate new theoretical perspectives by pursuing new ideas/approaches and networking with scientific colleagues across a range of disciplines.
* Maintain confidentiality when dealing with commercially sensitive information.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, regionally dispersed research team to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Values, Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies**

* **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
* **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
* **Resource Management/Leadership:** Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate responses by adapting/creating and testing alternative solutions.
* **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
* **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of change.

## **Selection Criteria**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A PhD (or an equivalent combination of qualifications and research experience) in a relevant field such as geology, hydrogeology, groundwater hydrology, environmental science, or other relevant geo-science domain.
2. Demonstrated experience in hydrogeological characterisation using multiple lines of evidence, groundwater resources assessment, groundwater hydrology, surface water-groundwater system evaluation.
3. Strong written and oral communication skills coupled with the ability to present results of scientific investigations at national/international conferences and stakeholder meetings.
4. A demonstrated publication history of authorship on scientific papers in peer reviewed journals and/or reports, conference proceedings, grant applications or inventorship on patent applications.
5. The ability to work effectively as part of a multi-disciplinary, regionally dispersed research group, and carry out independent individual research to achieve organisational goals.
6. Demonstrated ability to undertake original, creative and innovative research by generating and pursuing novel ideas and solutions to scientific research problems.
7. A driver’s licence.

## **Desirable**

1. GIS and spatial analysis knowledge.
2. Familiarity with hydrogeological fieldwork and HSE protocols.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- https://ielts.com.au/
* To be willing and able to undertake fieldwork as required.

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We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted

Find out more about CSIRO [Land and Water](https://www.csiro.au/en/Research/LWF)