# Position Details

## Research Projects- CSOF4

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| The following information is for applicants |
| Advertised Job Title | Geospatial Data Manager |
| Job Reference | 91897 |
| Tenure | IndefiniteFull-time |
| Salary Range | AU$89,680 to AU$101,459 pa + up to 15.4% superannuation (pro-rata for part-time) |
| Location(s) | Adelaide SA, Brisbane QLD or Perth WA |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Team leader – Risks to Groundwater Resources |
| Client Focus – Internal | 60% |
| Client Focus – External | 40% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact **Dr Kate Holland** via email at kate.holland@csiro.au or phone **+61 8 8303 8736** |
| 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 or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas 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 Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work.

The Geospatial Data Manager will work with CSIRO research scientists, project staff and CSIRO clients to develop and deliver projects as part of the ‘Risks to Groundwater Resources’ team.

The ‘Risks to Groundwater Resources’ Team provides integrated assessments of risks to groundwater quantity and quality to support sustainable development and resilient management of groundwater resources and dependent environments. This includes spatial data analysis and data management roles for the regional-scale [Water Resource Assessments](https://www.csiro.au/en/research/natural-environment/water/Water-resource-assessment) in Northern Australian catchments funded through the Australian Government’s $3.5 billion National Water Grid Fund. Data management and governance skills are critical for successful delivery of these large multidisciplinary, regional-scale water resource assessment projects.

The Geospatial Data Manager will have opportunities to engage with other researchers and contribute to groundwater management projects including, but not limited to, regional-scale water resource assessments for Norfolk Island, Northern Australia and in the Murray-Darling Basin. By developing and managing data-driven solutions to diverse research problems, they will help develop novel solutions using fit-for-purpose products often at a regional scale.

This role will undertake data management and analysis tasks:

**Data management** tasks include identifying, establishing and maintaining data streams; collating and curating incoming datasets; producing and managing metadata; harmonising, standardising and integrating datasets and use of big data; conducting data integrity and quality checks; managing data, privacy and ethical use, consistent with regulatory and security requirements.

**Data analysis** tasks (supporting the modelling team) include preparing analysis ready data; assessing the quality, utility and fitness for purpose of input data; supporting the development and operation of data processing workflows and coding specific processing steps; managing processing workflows; assessing modelling outputs and supporting analysis and interpretation of results.

### Duties and Key Result Areas:

* Undertake data management and analysis tasks; including geostatistical methods
* Knowledge of spatial databases across different jurisdictions and organisations.
* Knowledge of fundamental data management practices and principles, and how to navigate cross-organisational data portals is critical for delivery of publicly accessible datasets
* Maintain a sound understanding of project needs and ensure that project team data management and analysis needs are met.
* Ensure dataset integrity, including implementing data quality tests and maintaining metadata
* Be accountable for the quality of the results delivered, research and/or technology directions and support research project teams to follow relevant data management protocols and to meet suitable data management standards.
* Contribute to scientific research that integrates spatial, field, remotely sensed and modelled data to enhance regional-scale integrated assessments with a focus on risks to water and the environment.
* 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, often geographically dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific objectives.
* Adhere to the spirit and practice of CSIRO’s 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 response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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 changes.

## **Selection Criteria**

#### Essential

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

1. Bachelor’s degree with honours in Science or Engineering, and/or equivalent relevant work experience in geospatial analysis
2. Demonstrated ability to analyse and visualise geospatial data using a variety of software packages, e.g., spatial analysis in ArcGIS or QGIS, data analysis and visualisation in Python, R, or similar.
3. Proven experience in data management workflows, including accessing cloud-hosted data streams, best-practice approaches to data access, curation and management; implementing data processing workflows using modern software engineering practices, including coding standards, code reviews, source control management, and testing.
4. Good communication skills and ability to cultivate productive working relationships with a variety of stakeholders, e.g., clients in government, partners in industry and colleagues in other science organisations.

**Desirable:**

1. A PhD or master’s degree in a relevant field such as engineering, geology, computer science, information technology, applied mathematics, environmental science or similar.
2. Knowledge of groundwater hydrology (preferably at a regional-scale), and an ongoing interest in regional-scale integrated assessment.
3. Knowledge and experience of information modelling (including schema or ontology development) and data standardisation.

Special 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.

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. [CSIRO Online](http://www.csiro.au/) and [CSIRO Environment](https://www.csiro.au/en/about/people/business-units/Environment) for more information. 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