# Position Details

## Research Projects – CSOF4

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| The following information is for applicants | |
| Advertised Job Title | Geospatial Analyst |
| Job Reference | 84814 |
| Tenure | Indefinite  Full-time (preferred); Part-time & job share arrangements may be considered |
| Salary Range | AU$87,068 – AU$98,504 per annum (pro-rata for part-time) plus up to 15.4% superannuation |
| Location(s) | Darwin NT (preferred); Townsville QLD (considered) |
| 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, Geospatial Analytics |
| Client Focus – Internal | 30% |
| Client Focus – External | 70% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Shaun Levick via email at [shaun.levick@csiro.au](mailto:shaun.levick@csiro.au) or phone +61 8 8944 8429 |
| 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 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 Analyst position sits within the Living Landscapes Research Program in CSIRO’s Land and Water Business Unit. The Living Landscapes Research Program develops tools and technologies to support government, industry and communities to realise a sustainable Australian environment where biodiversity flourishes, ecosystems function and adapt, and ecosystem services provide for the needs of future generations. The program contributes to the development of integrated science solutions to complex environmental problems by deploying cutting-edge biophysical expertise on whole-of-system approaches to monitoring, assessment, evaluation and reporting on land and ecosystem outcomes, including innovative scenario modelling and prediction services, to support evidence-based decision making and catalyse new ways of responding to land, water, biodiversity and social challenges.

As part of the Geospatial Analytics team, this role will contribute geospatial support to a broad range of environmental management projects. Current research projects within the team span vegetation dynamics, precision carbon accounting, biodiversity assessment, geomorphology and erosion risk modelling, and the calibration/validation of spaceborne satellite products.

Please note this role will require travel and undertaking fieldwork in remote locations (particularly within northern regions of Australia) as necessary to perform the duties of the role.

### Duties and Key Result Areas

* Develop and maintain geospatial data processing workflows to support environmental research projects.
* Undertake fieldwork as part of a team in remote locations for the calibration and validation of satellite data products.
* Assist with the planning, acquisition, and post-processing of static and kinematic LiDAR data.
* Utilise cloud-computing platforms and HPC systems for spatiotemporal analysis of large satellite datasets.
* Contribute to geostatistical analyses and machine learning model development.
* Contribute to the preparation of scientific journal paper and client reports, including the preparation for publication of quality maps and figures.
* Document and store programming code and scripts in a transparent and reproduceable manner.
* Show initiative to seek new approaches to meet experimental or technological needs when encountering new problems where methods are not defined.
* Participate in the identification and definition of research and/or technological problems with colleagues.
* Liaise with clients to determine their needs and take personal responsibility for their satisfaction, and address problems promptly and in a constructive manner.
* Participate in planning projects and accept responsibility for scheduling and completion of major parts of the project, including evaluation of options, experimental design, data collection and analysis, user and customer research, user experience and/or software design, implementation and delivery.
* 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 Zero Harm goals.
* Other duties as directed.

## **Selection Criteria**

#### Essential

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

1. A tertiary degree, or an equivalent combination of relevant qualifications and industry experience, in ecology, remote sensing, geomatics, computer science, or a related field.
2. Demonstrated knowledge and technical capability in the use of spatial and temporal data in multi-disciplinary projects that support decision making for environmental management.
3. Demonstrated knowledge and technical capability in:
   1. computer programming or scripting languages (e.g., Python, R) for automating workflows or the processing of large datasets.
   2. a range of computing platforms (e.g., high-performance and cloud computing) and collaborative software development (e.g., Azure DevOps, BitBucket and GitHub).
4. Proven experience and ability in the collection, post-processing, and analysis of terrestrial and airborne LiDAR data.
5. Sound written and oral communication skills, including the production of scientific reports.

## **Desirable**

1. Experience in the piloting of UAV platforms for quantitative remote sensing purposes.
2. Demonstrated knowledge and technical capability with implementations of the Open Data Cube and familiarity with xarray and dask.
3. Demonstrated experience in the implementation and use of modelling approaches that report on environmental processes.
4. Experience and willingness to undertake fieldwork in remote locations.

## **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.

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.

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* 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)